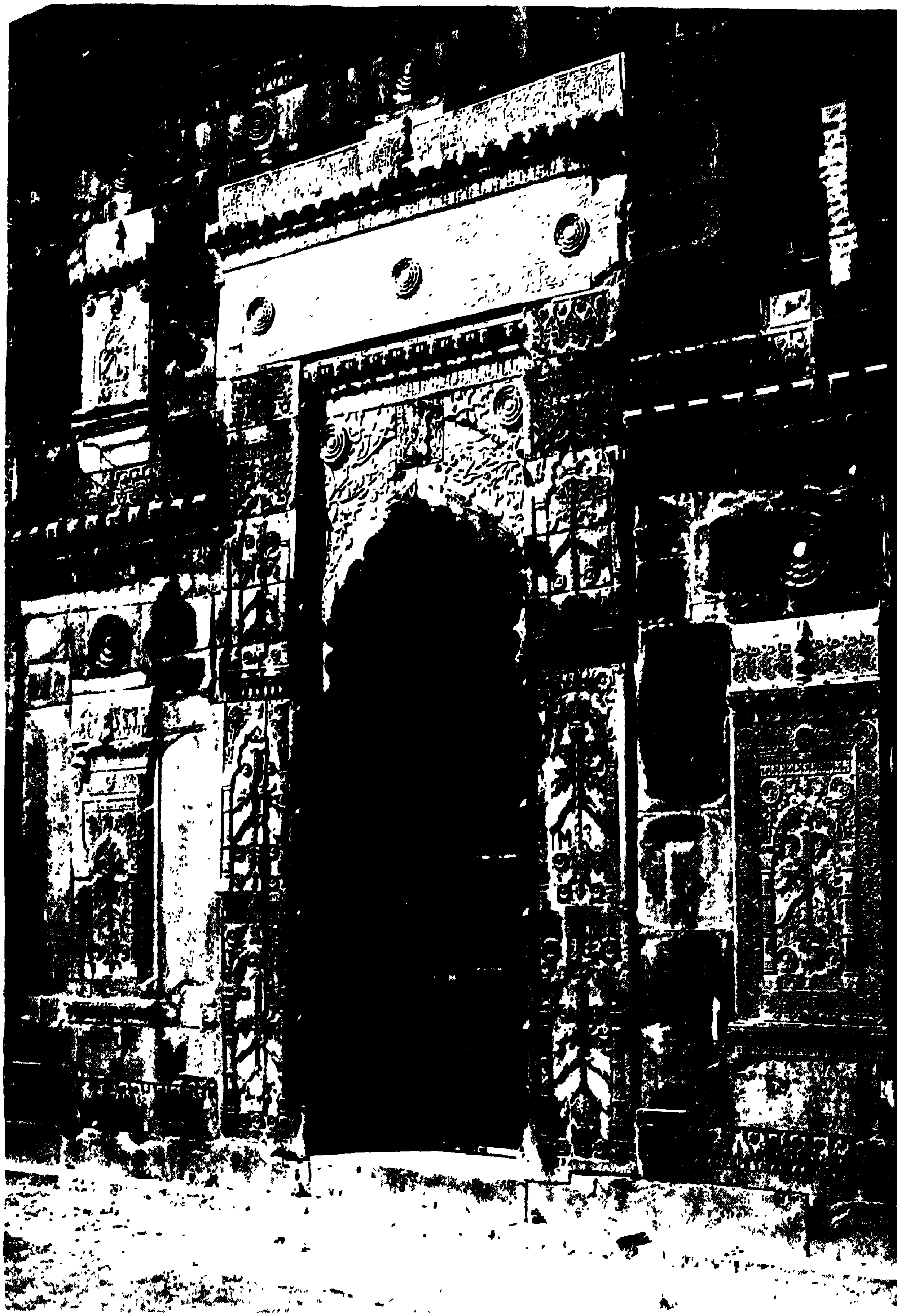
Mosque Architecture
of
Pre-Mughal Bengal



Gaud : Chhoto Sona Masjid, stone carvings in the facade

MOSQUE ARCHITECTURE
OF
PRE-MUGHAL BENGAL

SYED MAHMUDUL HASAN

UNIVERSITY PRESS LIMITED
Bangladesh
1979

University Press Limited
Red Cross Building
114 Motijheel Commercial Area
P. O. Box 88 Dacca 2

Published by the University Press Ltd., Dacca
Printed in Bangladesh by the Pioneer Printing Press Ltd.
2 D. I. T. (Ext.), Motijheel Commercial Area
Dacca 2 Bangladesh

To
The Cherished Memory
Of My
Late Father

CONTENTS

ACKNOWLEDGEMENTS

My interest in pre-Mughal Bengal architecture dates back to 1957 when as a final year student of Muslim art and architecture I visited the ancient sites of Gaud and Hazrat Pandua. The immense possibility of working in the unexplored field of Muslim architecture of Bengal was laid bare to me by my teacher Dr. Md. Serajul Islam, Professor of Islamic History and Culture, Dacca University, Dacca, who was conducting the study tour to these forsaken and forgotten metropolitan cities of Bengal. Subsequent visits to places of archaeological interest throughout the sub-continent of India gave me an opportunity to undertake field-study of Muslim monuments in a comparative spirit.

I owe my zeal to do comprehensive research work on the monuments of Gaud and Hazrat Pandua to the inspiration of my revered teacher, Dr. A.B.M. Habibullah, retired Professor of Islamic History and Culture, Dacca University, Dacca and now visiting Professor, Nehru University, Delhi. While completing my thesis I recalled Professor Habibullah's comments : "He has undertaken a research project on the Adina Mosque, a pre-Mughal monument of Bengal on which no comprehensive study has yet been done. It is hoped that given suitable opportunity, he will be able to produce a work which will make a useful addition to the literature on this subject. For he is hard working and has developed a keen interest in the subject and with his background study and teaching experience (Post-graduate), he has acquired what I may call an insight. He has acquaintance with Arabic and has also made some progress in German. All this, I dare say, gives him the requisite equipment for original research in fields of Indo-Muslim archaeology."

A "suitable opportunity" to undertake a "comprehensive study" of the pre-Mughal monuments of Bengal came in 1962 when I went to England to work with Professor K. de B. Codrington, Professor of Indian Archaeology, University of London, with a State Scholarship. I owe a deep debt of gratitude to Professor Codrintgton for his ungrudging assistance and able guidance in the preparation of my thesis entitled "Development of Mosque Architecture with special reference to pre-Mughal Bengal". His profound knowledge and penetrating insight in the field of Indian Archaeology were of great assistance to me to solve many intricate problems. I am also greatly indebted to him for taking the trouble to guide us in the Museums and Galleries and explaining to us various problems that beset Indo-Muslim archaeology and initiating us to do research with the visible remains of our material culture. Without his able guidance this work could never have been produced.

I am also grateful to Mr. J. Burton-Page, Reader in South Asian Art and Archaeology, the School of Oriental and African Studies for going through my work and offering valuable suggestions, and to Dr. A. K. Irvine and my friend Dr. G.

Fehervari, also of the School for their keen interest in my work and ungrudging assistance.

I am much indebted to Mr. D. Barret and Mr. R. Pinder-Wilson of the Department of Oriental Antiquities of the British Museum, for their constant encouragement and valuable guidance.

My thanks are also due to the Department of Archaeology, Government of India for supplying all the necessary photographs of the dilapidated monuments of Gaud and Hazrat Pandua and also to the Central Research Fund of the University of London for enabling me to obtain those photographic materials with their grant.

It would be well-nigh impossible to thank adequately the members of the Staff of the Library of the School of Oriental and African Studies, Institute of Archaeology, India Office Library for all the assistance they have unhesitatingly given.

I would also like to put on record my deep sense of gratitude to the various institutions, like the British Museum, the Victoria and Albert Museum, Royal Scottish Museum, Ashmolean Museum and also Mr. H. Hodgkin, a private collector for allowing me to use and publish a few unnoticed and interesting architectural fragments, glazed tiles, carved stones, inscriptions, etc.

My profound thanks are also due to the former Director of the Academy for Pakistan Affairs, Dacca (now defunct) and also Government Press, Dacca, for taking keen and personal interest in the publication of the first edition of my thoroughly revised thesis under the changed title of "Mosque Architecture of pre-Mughal Bengal", which is accompanied by selected sketches and photographs.

Had my wife not encouraged me and sacrificed a lot, this work would never have been produced and published.

LIST OF ABBREVIATIONS

AEL	Arabic-English Lexicon
AF	The Architectural Forum
AI	Ars Islamica
AIPAA	American Institute of Persian Art and Archaeology
AJ	The Architect's Journal
AR	Architectural Review
AR, DAND	Annual Report, Department of Archaeology, Nizam's Dominions
AR, ASI, DG	Annual Report, Archaeological Survey of India, Director-General
AR, ASI, EC	Annual Report, Archaeological Survey of India, Eastern Circle
ASR	Archaeological Survey Reports
ASI,M	Archaeological Survey of India, Memoirs
ASWI	Archaeological Survey, Western India
BAIIAA	Bulletin of the American Institute of Iranian Art and Archaeology
BASOR	Bulletin of the American School of Oriental Research
BDG	Bengal District Gazetteers
BGA	Bibliotheka Geographorum Arabicorum
BI	Bibliotheka Indica
BM	The Burlington Magazine
BSOAS	Bulletin of the School of Oriental and African Studies
CHI	Cambridge History of India
CIS	Corpus Inscriptionum Semiticarum
DA	A Dictionary of Architecture
DI	A Dictionary of Islam
EB	Encyclopaedia Britanicca
EI	Encyclopaedia of Islam
EMA	Early Muslim Architecture, vols. I and II
A short Account of EMA	A short Account of Early Muslim Architecture
ERE	Encyclopaedia of Religion and Ethics
MA	Encyclopaedia of World Art
IA	Indian Antiquary
IAL	Indian Art and Letters
IOL	India Office Library
JA	Journal Asiatique
JASB	Journal of the Asiatic Society of Bengal
JASP	Journal of the Asiatic Society of Pakistan
JE	Jewish Encyclopaedia
JISA	Journal of the Indian Society of Oriental Art
JRAS	Journal of the Royal Asiatic Society
JRIBA	Journal of the Royal Institute of British Architects
JRSA	Journal of the Royal Society of Arts
MAB	Muslim Architecture of Bengal
PRIBA	Proceedings of the Royal Institute of British Architects
WZKM	Die Welt des Orients : Wissenschaftliche Beitrage zur Kunde des Morgenlandes
ZDMG	Zeitschrift der Deutschen Morgenlandischen Gaesellschaft. Leipzig, 1880

LIST OF FIGURES

LIST OF PLATES

XXXVII Gaud : Darasbari Masjid, a central *mihrab*

XXXVIII Gaud : Chhoto Sona Masjid, exterior view : A.D. 1493-1519

XXXIX Gaud : Chhoto Sona Masjid, *mihrab* wall in *situ*

XL Gaud : Chhoto Sona Masjid : stone carvings in the central *mihrab* The Royal Scottish Museum, Edinburgh

XLI (a) Gaud : Chhoto Sona Masjid : Hindu sculpture on black basalt showing the image of Brahmani, consort of Brahma on the obverse, 11-12th centuries A.D.

(b) Muslim carvings on the reverse : probably 16th century A.D.

XLII (a) Gaud : Chhoto Sona Masjid : image of seated Buddha on the obverse, 11-12th centuries, A.D.

(b) Specimen of Muslim stone cutter's art in low relief like that of Pl. XLI (b) on the reverse : probably 16th century, A.D. The British Museum

XLIII (a) Inscription of Sultan Yusuf Shah, dated A.H. 883/A.D. 1478, belonging to the Chamkatti Masjid, Gaud, British Museum

(b) Inscription of Sultan Yusuf Shah, dated A.H. 885/A.D. 1480, belonging to Tantipara Masjid, Gaud, British Museum

1

ORIGIN OF MOSQUE ARCHITECTURE

THE evolution of *Masjid* as a distinct type of Muslim building can be traced by an analytical study of the term *Masjid*, together with other cognate terms. Among these are *Musalla*, *Mihrab*, *Majlis*, *Bayt* or *Dar*, *Zawiya* and *'Anaza-Harba-Sutra.*

Like, *Sajada*, *Salat* is a loan word in Arabic, as has been stated earlier.[1] *Sajada*, which forms the root of *Masjid* differs from *Salat*, from which the term *Musalla* is derived not only in its radicals but in meaning. *Sajada* forms one of the ten genuflecions performed during the ritual prayer or *Salat*. In the ordinary sense *Salat* denotes spontaneous individual prayer. However, both *Sajada* and *Salat* indicate some place of prayer, namely, the *Musalla* from *Salat* and the *Masjid* from *Sajada.*

However, in the early phase of the missionary career of the Prophet, both *Musalla* and *Masjid* seem to be identical in interpretation. As Pedersen puts it, "in the dogma of Muhammad, a sanctuary was not a fundamental necessity".[2] Hence the Prophet had no fixed place of prayer in Mecca. He performed *Salat* sometimes besides the Ka'ba, sometimes in the private place of worship, that is, the *Musalla*, erected by Abu Bakr.[3]

The *Musalla-Masjid* conception of the place of prayer is expanded by the statement of the Arab grammarian Ibn-al-'Arabi. While interpreting the term *Salat* in his *Taj*, he refers to the *Mihrab al-buyut wa Musalla al-Jama'at*, that is, the *Mihrab* of (or in) houses and the place of the prayer meeting. Here *Mihrab* and *Musalla* are employed in the sense of a place of congregational prayer, that is to say, *Masjid.*[4]

Diez observes, "The private place of worship known as *Musalla* originated in pre-Muhammadan Arabia where we have evidence of it, for example, in the story of the Prophet's *Salats* outside Medina in a place belonging to the Banu Salima".[5] The site was situated south-west of the city in the territory of the Banu Salima, outside the wall, north-east of the bridge. Festivals were held there on 1st Shawwal and the 10th Dhul Hijja.[6]

While Diez traces the *Musalla* from pre-Islamic Arabia, Wensinck expounds a curious theory in ascribing its origin to the North Semitic threshing floor.[7] It is, however, extremely misleading to determine the nature of any specialised building such as the Islamic mosque simply because of a primitive ritual performed on threshing floors. It is known that in the Prophet's Mosque, funeral prayers were offered in the same way as they were elsewhere.[8] Curiously enough, there is no prostration in the *Salat-al-Jana'iz* or funeral prayer. It was always feared that people ignorant in religious

matters should take the service to be an act of the worship of the dead, corresponding to the ancient practice of ancestral worship. In any case, the fundamental concept of *Musalla* and *Masjid* is that they are places of prayer.

However, the *Masjid* as a type of architecture intended for congregational prayer did not exist at Mecca before the Hijra. In Madina, the stronghold of Islam, however, the two concepts of *Musalla* and *Masjid* came to receive distinct interpretations. The controversy among the Traditionalists over the performance of prayer in either the *Musalla* or the *Masjid* would seem to prove that they were structurally different.[9] Wensinck maintains that the *Musalla* was the place of prayer for rain, and that the *Masjid* was the place of prostration and worship. Without entering into the controversy, it is clear that the *Musalla* was relegated to a secondary importance as compared with the Madina *Masjid*. The original, very simple building of the Prophet at Madina, possessed all the appurtenances necessary for congregational prayer and served as a prototype of the Mosque throughout the Islamic world.[10] The *Musalla*, on the other hand, was part of the buildings, forming the headquarters of the tribal organization or seat of a tribal clan.

Doughty[11] refers to a Masally (*Musalla*) as a raised mud platform with a low cornice bestrewn with clean gravel and says that it was to be found in all the house courts at Hayil. These praying platforms or "kneeling places", as Doughty calls them, are quite common in the desert, being defined by a border of stones, facing the Ka'ba, known as *Sutra*. Niebuhr gives a detailed account of a ceremony he observed in Yemen in a place outside the town devoted to public prayer and known as Masally (*Musalla*).[12]

Hughes explains *Musalla* as a small mat, cloth or carpet on which a Muslim says his prayer. Incidentally, he also observes that in Egypt the term *Sajadah* is used in place of *Musalla*, as well as the Persian *Jai-Namaz*.[13] In a commonly used sense, *Musalla* seems to represent a single square chamber with a *mihrab* in the *qibla* wall, approached by a high entrance portal. In other words, it later on came to be identified with *Masjid*.[14] Architecturally speaking, the *Musalla* is, as Diez says, "a religious building not sufficiently important to form an architectural type of its own".[15] This is not altogether correct for Gauhar Shad's great Mosque at Harat is commonly known as *Musalla* as well as *Masjid*.[16] But, generally speaking, the term Masjid superseded the term *Musalla*.

Attempts have been made by scholars to identify the *Mihrab* as a place of prayer, having all the appurtenances of the developed *Masjid*.[17] Ibn al-'Arabi refers to the *Maharib* of the Banu Isra'il, as being their *Masjids*. Muller translates the term *Mihrab* which appears in the Kawkaban inscription of Hamadan for the first time as "sanctury".[18] The Prophet also refers to the *Mihrab* of David and other Prophets, thereby implying chapels, like those at Jerusalem, referred to by Tabari and commented on by Serjeant.[19]

The employment of the compound term *Mihrab al-Musalla* by Qalanisi[17] is interesting,

for both the terms, as we have seen, can imply *Masjid*. Taking this into account and also the simultaneous use of *Mihrab al-buyut wa Musalla al-Jama'at*, i.e., the *Mihrab* of the House and the *Musalla* of the Congregation,[17] it is possible to suggest that the former indicates a part of the Mosque devoted to congregational worship. It would seem that the usual meaning of *Mihrab*, as the usually concave nichè indicating the *qibla*, did not emerge in Islamic architecture until the reconstruction of the Mosque of the Prophet in Madina by 'Umar ibn 'Abd al-'Aziz, the Governor of the Hijaz under the Umayyad Caliph al-Walid in the year A. H. 88-90/A.D. 707-9.[20] Curiously enough, the earliest known example of the *Mihrab* is in the cave of the Dome of the Rock, and is commonly spoken of as Solomon's *Mihrab*.[21] This *Mihrab*, which corresponds to the design on a coin of 'Abd al-Malik dated, A.H. 75/A.D. 695 was built not later than the end of the 7th century.[22] Both Solomon's *Mihrab* and that represented on the coin of 'Abd al-Malik are, however, not concave, but flat.

Etymologically, the term *Mihrab*[23] has much the same meaning as *'Anaza* or *Sutra*, for the derivative *hariba* denotes "a place of a struggle" or "a battlefield".[23] Lane explains *Mihrab* as *Masjid* or "sanctuary". He writes, "..and sanctuaries were built for the sons of Israel: their *masjids* in which they used to teach and gathered for prayer".[24] Like *Masjids*, *Mihrab* is also a loan word, being probably Aramaic.[22]

It is interesting to note that *Mihrab*[25] occurs in the poems of Imru 'l-Qais, al-A'sha, Ibn Duraid Ishtiqaq.[26] It also appears in Sura XXXIV. 3, but in Sura III.37, where it denotes not a *qibla*-niche or sanctuary but rather a Lady's private chamber or Zenana.[27]

Hamilton considers the little chamber within the bath in the Khirbat al-Mafjar, built by the Umayyad Caliph Hisham in A.H. 172-80/A.D. 788-96 as a *diwan* or audience hall. He writes, "It is easy to recognize in the apsidal dais a Mihrab (in the secular sense), the form of chamber prescribed by long usage for the seats of Governors and princes".[28] Much the same observations have been made concerning Mshatta 'and Qusayr Amra.[29] Following the same line of thought Serjeant contends that the original meaning of the term *Mihrab* was "a row of columns with their intervening spaces". He explains it as "a pillared sitting-place, open at one side, set at some eminence above ordinary ground level."[4] His description is very like that of the *diwan* of Medain Saleh drawn and described by Doughty.[11]

It is interesting to note that the *Masjid* is on occasion referred to as the *Mihrab*, as is done by Tabari in his commentary on Sura III, 37, when mentioning the *Mihrab* with reference to the Prophet's private room. He writes, "—any kind of room or mosque which was built for her (Maryam) the most honoured place—it is called so because it is the place of fight which the devil never will touch—as it is placed in the most honourable place of the house of Jerusalem".[22]

Ibn Hazm in his chapter entitled *Hakm al-Masjid* relates a story which clearly shows that the word *Mihrab* could stand for the whole building in the early days of Islam.[30] In other words, it evidently denotes a "holy place" or a "place of prostration". Serjeant

states that in Hadramaut the term *Maharib* means the portico of a Mosque.[4] In the successive phases of architectural development of the *Masjid, Mihrab* was used especially to indicate the place of prayer, that is to say, the *qibla* of the Mosque. Besides exercising its essential functions in orientating Mosques towards the Holy Sanctuary of the Ka'ba, the *Mihrab* has been made the subject of ornamentation as no other part of the Mosque has been.[31]

According to Lammens,[32] the idea of the *Masjid* is closely linked with the customs of the pre-Islamic Arab Bedouins. In the accepted social frame-work of Bedouin life, the tent of the individual Bedouin came to be dissociated from the tribal tent, which was considered to be both inviolable (*hima*) as well as sacred (*haram*).[32] Such a tent on which was centred the unbounded veneration of the tribe was the meeting-place of the *Majlis* and so was identified with it.

The terms *Majlis* and Nadi, as pointed out by Lammens are synonymous. The *Majlis* or rather the tribal tent assumed the role of the tribal sanctuary, where *Din al-'Arab*, the pre-Islamic Arab religion, was practised. Citing the example of the *Masjid* of the Banu Najjar tribe (*Masjid al-Qaum*), founded before the Hijra, Lammens writes, '—it (Masjid) succeeded the Majlis of the tribe, a tent of the council among the individualistic Arabs whose social life was concentrated in it".[32]

Drawing a parallel between the *Majlis* idea of the Bedouin tribes and the *Dar* conception of the Prophet's Mosque at Madina, Lammens again says, "—just as Islam showed the desire of absorbing the organisation of the Jahiliya, of including it in its Jam'a, it adopted in enlarging it, the conception of haram and hima, both Semitic ideas".[33] In spite of these remarks of Lammens, which are supported by Rivoira, it is hard to believe in the pre-Islamic origin of the *Masjid*. Primarily the *Majlis* or Council Tent served as the focus of Arab society, whereas the *Masjid*, right from the very beginning, formed the veritable focus or centre of the socio-political and religious life of the Muslim community. But philologically *Majlis* does not mean anything more than merely a meeting place.

The ideas of haram and hima are doubtless very old. Moreover, the widely venerated shrines of Mecca and Jerusalem, which are referred to as *Bait al-Haram* or "Sacred Enclosures" and *Bait al-Muqaddas* or "Holy House" were already in existence, and must have radically influenced the idea of the early Muslim mosques.[34]

With regard to the problem of the "place of prostration", another term exists, *Zawiya*.[35] In connection with an Arabian Nights' tale, Richard Burton refers to the Arabic term *Zawiya* as a little mosque or oratory. He further explains that it stands to the Mosque in the same relationship as a Chapel to a Church,[36] but such Christian parallels are misleading. Properly speaking, *Zawiya* is the corner of a building, but it was also applied to the cell of a Christian monk and later on to a small "praying room".[37] In its widest sense, as Dumas puts it, "the Zawiya is, to sum up, a religious school and a free hostel, in these two respects it has much in common with the Mediaeval monas-

tary"[38]. The *Zawiya*, therefore, is not so much an oratory or a part of the congregational mosque, devoted to individual prayer, as an asylum for travellers and poor people.[39]

However, the idea of the *Masjid* does have an inseparable connection with the characteristic Muslim idea of *'Anaza*, which is also sometimes known as *Sutra* and *Harba*. Lane explains *'Anaza* as a sort of spear or staff. Like *'Anaza*, *Sutra* and *Harba* also denote a kind of spear.[39] Lane suggests that the term *'Anaza* means "spear with bent horns."[22] Schwarzlose considers it to be something between a staff and a spear with a head like a spear.[40] Miskat gives an idea of the size and shape of the *Sutra* when he says that the stick or spear should be a cubit in height and an inch thick.[41] Miles says, "The *'anazah* was the harbah or spear which the Abyssinian King Najashi sent to Zubayr b. (bin) al-'awwam as a gift and which the latter in turn gave to Muhammad. As early as the year 2 of the Hijrah it was carried by Bilal before the Prophet when he went forth to the *Musalla* on the two 'Ids and was stuck in the ground in front of him to serve the dual purpose of *sutrah* and *qibla*, that is, to delimit the piece of ground private to him during his prayers and to point the direction.'[22] In the field of battle, warring Muslim soldiers naturally used their spears as the *Sutra* when praying. The Prophet's own *'Anaza* is preserved as a sacred relic of the Caliphate at Samarra.[42]

Literally, *Sutra* denotes covering, sheltering, protecting, specially at the time of ritual prayer. In its specific sense, it means an object, either fixed or lying in front of the worshipper at right angles to the direction of Mecca. It has also been referred to as *Kiswa* or veil. As Gayet puts it, "The censer of a woman in charge of burning perfume before the Ka'ba communicated the fire to the veil and the whole sanctuary was burnt from the top to the bottom".[44] As a concept the *Sutra* is, therefore, probably pre-Islamic, engrained in the idea of the *Kiswa* of the Holy Sanctuary of Mecca.[45] In the traditions, the *Kiswa* is mentioned as the *Sutra*. *Sutra* is derived from *sitr*, or *satara*, denoting the veil or curtain, which screened the Prophet's wives from public eyes in the Hujra of his Mosque at Madina.[43] Bamboo staff and turbans are sometimes also used as the *Sutra*. The term *Harba* is closely related to *Mihrab*, being its root, as has been stated earlier. Bukhari relates a tradition : "The Prophet ordered the *Harba* to be placed between his hands, and he took it as (a *qiblah*), and people followed him, and the door of praying faced the *Harba*. The *Harba* was fixed and they prayed in front of it."[41] The *Harba*, therefore, clearly has the function of marking the direction of the *qibla*.

Becker [46] interprets the *Sutra* as a sceptre, a part of the royal paraphernalia, but this magnification of Arab royalism is not really convincing. Both Becker and Rhodokanakis[45] think that the staff (*Sutra*) and pulpit (*Minbar*) are derived from the two indispensable attributes of the Judge or Orator in pre-Islamic Arabia."[47] Quoting Strzygowski, Rhodokanakis substantiates this view by referring to the frescoes of Qusayr 'Amra and Mshatta, where seated figures were found with sceptres in their

hands.[29] Ibn Khaldun, however, does say that the preacher (*Khatib*) carried a staff or sword as he approached and mounted the *Minbar*.[48] But the idea of the *Sutra* is essentially Islamic.

The place of *'Anaza* in the study of early Islamic iconography is still a matter of deliberation. Miles draws attention to the iconographical or symbolic representation of *'Anaza* in a unique Arabo-Sasanian dirham struck at Damascus in not later than A.H. 75/A.D. 695 now in the American Numismatic Society's Collection.[49] The obverse has a portrait of a ruler in the Sasanian style with Pahlavi script, but the reverse bears the most extraordinary representation of a semi-circular *Mihrab* resting on two twisted pilasters with an upright spear, descending from the crown of the arch. Miles describes it as "terminating in an apical blade with two basal prongs bent background, and standing upon what appears to be a bifurcated base".[22]

According to Miles, the *'Anaza*, within the *Mihrab* is a replica of "the distasteful gabri symbolism of the fire altar".[22] The Achaemenian and the Partho-Sasanian seals and coins demonstrate representations of fire-altars with two flanking attendants. [16] As figural or symbolic representation is revulsive to Muslim religious taste, the Muslim mint-masters probably replaced it by a *Mihrab*, copied probably from Solomon's *Mihrab* in the cave of the Dome of the Rock, which is dated A.H. 72/A.D. 691 referred to above. Architectural and decorative resemblances between the two are to be observed in the semi-circular arch of the *Mihrab*, the two twisted pilasters, the unusual form of capitals and vine scroll motifs.[22]

In the institution of the Hajj, the pilgrims have to pelt pebbles at the stone pillars at certain stage with a view to prevent devilish interference. This pre-Islamic custom which survived in Islamic rites led Wellhausen and Wensinck to think that *Sutra* may be said to have possessed the power of exorcising demonic influences.[50] In the sense of a spear, it has been considered to be a manifest attribute of the Commander of the army, Chieftain of the tribe, ruling Princes and Judges.[22] In its implication of exorcism, the *Sutra* may be considered to have been borrowed from ancient Jewish practice, the parallel being *Shebet* or sceptre or staff.[51]

In the light of the above discussion, there is no reason to doubt that *Sutra* or *Harba* is the embodiment of the *Mihrab* meaning "the place of the lance."[22] Strangely enough, before the concave *mihrab* appeared in A.H. 88-90/A.D. 707-9, the *qibla* in the Mosque of the Prophet at Madina was determined by a large block of stone.[52] This stone which often considered as the replica of the "Black Stone" of the Ka'ba,[53] occurs in the form of a hanging bell at the corner *Mihrab* of the Mashhad or Tomb of Imam 'Aun al-Din at Mosul (xiiith century A.D.).[52]

From the concept of *Sutra* is evolved *'Idgah* which is an open air praying ground with a wall on the *qibla* side. As Richmond puts it, "They have a screen of wall about a hundred yards long with a central prayer-nich and the normal three steps for the preacher : and each extremity is garnished with an imitation Minaret".[36] *'Idgah* is, in fact, an enclosed mosque, but with a limted and special function.[52]

In conclusion, it may be said with a fair amount of certainty that the *Sutra* formed the genesis of the *'Idgah*, which in course of time developed into a well-formed architectural type. As Conde puts it, "The Mosque is of various and almost of any shape. It is, in fact, a wall".[54] This fundamental concept of *Masjid* is in close conformity with the sayings of the Prophet, as *Bukhari* relates, "The earth has been created for me as a *Masjid* and a place of purity, and whatever men from my Umma finds himself in need of prayer, let him pray" (anywhere).[55] This is further attested by the fact that the early camp-mosques at Kufa, Basra and Fustat are built of reeds and thatch so that they could, if necessary, be taken down with the movement of the military camp.[56]

NOTES AND REFERENCES

1. Jeffery, A., *The Foreign Vocabulary of the Qur'an*. Gaekwad Oriental Series, Baroda, Vol. LXXIX, 1938. While al-Ukbari, *Imla*, ii, 89 and al-Jawaliqi, *mu'arrab*, 95, derive the origin of the term from the Hebrew thereby interpreting it as synagogue, Ibn Jinni, *muhtasab*, quoted by as-Suyuti, *Mutaw*, 55, and Fraenkel, *De Vocabulis in antiquis Arabum carminibus et in corano peregrinis*, Leiden, 1880, p.21., think that it had been borrowed from Syriac, implying a place of prayer, the parallel words in Syriac being ܒܝܬ ܨܠܘܬܐ *byt slwt'* Rossini, C.C., *Chrestomathia Arabica, Meridionalis Epigraphica with Glossarium*, Roma, 1931, p. 224, and Hommel, F., *Sudarabische Chrestomathie*, Munchen, 1893, p. 125, have attempted to trace it to the South Arabian vocabulary, implying chapel. However, Wensinck suggests that the term has been derived from *sl* in Aramaic, denoting 'to bow', 'to bend', 'to stretch'. The substantive *selota* is the 'nomen verbale', or nominal verb of the Aramaic verb *sl'*, ordinarily used as a trap-set catching birds, so that *selota* only means 'a bowing down', a 'prostration'. Wensinck, A. J., *Some Semitic Rites of Mourning and Religion : Studies on their Origin and Mutual Relation*, Amsterdam, 1917, p. 13, (hereafter cited as *Semitic Rites*, p.13). The term assumed a comprehensive usage in the South Arabian inscriptions before it came to be employed in a wider scale in the classical language of the Arabic, referred to on several occasions by the Qur'an, Sura, XXII, Verse 41.
2. Pedersen, Johs, *Masdjid*, in *EI*, vol. III, pt. I, 1913.
3. al-Bukhari, *Sahih*, *Salat*, 86, V.
4. Serjeant, R. B., *Mihrab*, in *BSOAS*, vol. XXXII, 1959. He writies, "The Maharib of the Banu Isra'il are these masjids, in which they used to sit, as if it were for counsel in the matter of war". Mahmud 'Ali Ghul connects *mdqnt* with *Mihrab* (*Was the Ancient South Arabian Mdqnt the Islamic Mihrab?*) *BSO AS*, vol. XXV, pt. 2, 1962.
5. Diez, E., *Musalla* in *EI*, *Supplement*, 1934-38.
6. Wensinck, A.J., *Musalla* in *EI*, vol. III, part 2.
7. *Semitic Rites*, J. G. Westzstein draws attention to the religious significance of the threshing floor in an article entitled '*Die Syrische Dreschtafel*'. In Egypt and Babylonia, time-honoured mourning rites were performed on threshing floors, which were, therefore, considered to be sacred. Mourning ceremonies were, however, held in Churches in early Christian times. This proto-Semitic use of the threshing floor, also existed in South Arabia, as pointed out by Wensinck.
8. *Semitic Rites*, Besides the observance of the funeral prayers along with the usual congregational prayers, the Madina mosque also served as a suitable place for performing the *Salat al-Istis'ka'* (prayer for rain) and the *Salat* on the two-Feasts, namely '*Id-al-Fitr* on the first day of Shawwal, and '*Id-al-Azha* and even the prayer for rain. (Bell, A., *Istiska'* in *EI*, vol. II, part I, 1927, p.562).
9. *Semitic Rites* ; See also al-Bukhari, *Istiska'*, bab 3, Cairo, 1304; Muslim, *Sahih* with Nawawi's commentary, Cairo, p. 301 sqq; Abu Du'ad I, p. 115 sq; Tirmidhi, I, 110; Nasai, I, 224.
10. Richmond, E.T., *Moslem Architecture 623 to 1516, some Causes and Consequences*, London, 1926, pp.3, 29.
11. Doughty, vol. II.
12. *Semitic Rites*, quoted by Wensinck, p. 8. Niebuhr, C., in *Reisebeschreibung*, Kopenhagen, 1774, p. 374, pl. LXVI (12) gives a description of a ceremony in Yemen at a place outside the town of Dola, called *Musalla* ('*Msalle*').

13. Hughes, *Musalla.*

14. Pedersen says, "the word *musalla* may mean any place of prayer, therefore also mosque".

15. Diez saw Arabian *Musalla* and *Masjids* of the simplest kind with *liwan* of several naves built of rows of pillars, running parallel with the *qibla* wall. They often lack any courtyard or even *Mihrab*. See also his *Die Kunst der Islamische Volker*, Berlin, 1915, pp. 8, 11, 37, 91, f. 100. He regards *Musalla* as a place of prayer. He particularly refers to the *Musalla* of Banu Salamah in Madina, and that of Bahrain. Marcais, G., *Manuel d'art Musulman*, vol. II, Paris, 1926, p. 489, describes the *Musalla* of Mansura.

16. *SPA*, vol. II.

17. Serjeant, quotes Ibn al-Arabi, "The Mihrab is the place where people sit (Majlis) and congregate". Abu Hanifa obviously thinks it as an elevated place. He says, 'The Mihrab is the noblest of the places where kings sit". (See also AEL, Book 1, part 2, pp. 540-41). It is in this exalted sense that the term Mihrab has been used for the Castle of Gumdan (Serjeant, p. 440). Another perplexing interpretation has been put forward by Ibn Qais in his Diwan which runs thus : "the maharib are masjids (places of prostration) made of gravel stones (*hujara manqura*) and raised above ground level (*al-ard*)". This corresponds unmistakably to "the kneeling places" described by Doughty, as stated above.

18. Serjeant, *CIS*, 106; See also MÜller, D. H., *Sifat Jazirat al- ءb*, Leiden, 1884—91, I p. 107, 195, N.1.

19. Serjeant; *See* also Tabari, *Ta'rikh*, ed. M. J. de Goeje, etc., Leiden, 1879-1901, 1, 2408 N. 5. Ibn Qalanisi refers to *mihrab-al-musalla*. He used *Maharība* as a part of the mosque in which people could pray. Edited by H.F. Amedoroz, *History of Damascus*, Leiden, 1908, N.4.

20. *EMA*, vol. I.

21. Dalman, G., *Neue Petra Forschungen und der Heilige Felsen von Jerusalem*, Leipzig, 1912, Abb. 81. *See* also *EMA*, I, p. 70, pl. 120(a) in vol. II., Fergusson, J., *The Temples of the Jews and other Buildings in the Haram area at Jerusalem*, London, 1878, p. 225. J. Walker states that" the entrance of the cave is one the south-eastern side of the Sakhra and on the right is the *mihrab* of Sulayman, the Maqam al-Khalil on the north corner with David's *mihrab* opposite". '*Qubbat al-Sakhra*, in *EI*, vol. II part 2, p. 1088. It measures 1.37×70m. (*EMA*, I, p. 70).

22. Miles G.C., *Mihrab and 'Anazah* in *Archaeologica Orentalia in memoriam Ernst Herzfeld*, New York, 1952. This coin is preserved in the American Numismatic Society's collection. It has the portrait of 'Abd-al Malik on the obverse and a *mihrab* with a semi-circular arch resting on two twisted pilasters on the reverse. It closely resembles Solomon's *mihrab*, which may have served as the prototype. This problem is discussed in detail in an unpublished thesis by G. Fehervari, entitled '*Development of the Mihrab down to the XVth Century*', University of London, 1961.

23. *AEL*, Book 1, part 2. The word also appears in the Mu'allaqat of Imru'l-Qays : "As the gazelles of the sand-desert in the palaces of the south Arabian princes." Considered to be one of the greatest of the Pre-Islamic Arabian poets, Imru'l-Qays claimed his descent from the ancient Arabian Kings of Yemen.

24. From Dillman and Fraenkel derive *Mihrab* from the Ethiopic root *Krb*, thereby linking with Aramaic. Dillman, A., *Lexicon Lingual Acthiopicae*, Leipzig, 1865; Fraenkel, S., *Die Aramaische Fremdwortern im Arabischen*, Leiden, 1886, 274: E. Glaser (*Mitteilungen Uber einige Sabaische Inschriften*, p.80) and Nielsen (*Die Altarabische Mondereligion*, Strassburg, 1910, p. 101) think that the word *Mihrab* is identical to the Ethiopic *Mikrab*, which denotes 'a pagan church'. It is also connected with the Hebrew word charabot as suggested by S. Daiches. (The Meaning of Charabot, in *Jewish Quarterly Review*, vol. XX, 1908 pp. 637-39). It is translated

by Derenbourg as 'fortress'. (*Supplement aux monuments, Sabeen et himayarite du Louvre* in *Revue d' Assyrologie et D' Archaeologie Orientale*, vol. VI, Paris 1905, p. 40). Some have tried to deduce the root *hrb* from the Assyrian *Karabu*, 'to be praised'. Mahmud 'Ali *Ghul* states that the term *mhrb* occured twice in South Arabian inscription. (Mahmud 'Ali Ghul, p. 453). Creswell refers to the term *haikal*, a form of niche in a Coptic Church in connection with the concave *mihrab* of Madina, built by Coptic masons (*EMA*, vol. I, pp. 98-99).

25. Bible : Job III : 14

The passage runs : "......with kings and counsellors of the earth, who built desolate places for themselves......"

In Isaiah., v. 17, the passage runs : "Then shall the lambs feed after their manner, and the waste places of the batons."

26. Geyer, R., *Diwan of 'al-A'sha.* 'Al-A'sha particularly refers to the *mihrab* of Tadmor or Palmyra in the sense of tomb-tower. Quoted by Fehervari, I, *op.cit.*, pp. 32-33.

27. The Qur'an : Surah XXXIV, 13 : The passages in the Qur'an run as follows :

XXXIV : 13 : "They made for him what he pleased of fortresses (*maharib*a) and images and bowls (large) as watering-troughs and cooking-pots that will not move from their place;"

III, 36 : "So her Lord accepted her with a good acceptance and made her grow up a good growing and gave her into the charge of Zacharias; whenever Zacharias entered the sanctuary (*mihrab*) to (see) her, he found with her food.

XIX, 11 : "So he went forth to his people from his place of worship (*mihrab*) then he made known to them that they should glorify (Allah) morning and evening".

28. Hamilton, R. W., *Khirbat al-Mafjar*, Oxford, 1959.

29. Rhodokanakis, N., *Zur Semitischen Sprachwissenschaft*, in *W. Z. K. M.* XXV, 1911. See also *A Short Account of EMA*, pp. 104-6, 124; Hamilton, R.W., *op.cit.*, p.64 It has an audience hall with three recesses at the end of it. At Mshatta, the big basilican hall with trikonchos or triple apse also serves the same purpose. Strzygowski, J., *Zeitschrift fur Geschichte der Architecture, Mshatta*, vol. I, pp. 59, 334-44.

30. Ibn Hazm, *Al-Muhallal* quoted by Fehervari, *G., op. cit.*, I, pp. 31-32. He in his treatise on Islamic Law according to the Zahiri school, vol. IV, p. 239 relates the story as follows : "While the Muslims were performing their dawn prayer on Monday, and Abu Bakr was praying with them, suddenly the Prophet raised the curtain of his wife's (A'isha) room and and looked at them, and it was thought that the Prophet wanted to share the prayer. Thereupon the Muslims were about to move during their prayer, clearly so that the Prophet might join the prayer. But the Prophet asked them to remain quiet and to carry on with their prayer. After that he entered his room and put down the curtain. 'Ali said, "If Abu Bakr was in the *Mihrab* he could not see the Prophet raising the curtain. And this was the day of his death."

31. Frye, R.N. *Some Aspects of Persian Art in an Illustrated Souvenir of the Exhibition of Persian Art at Burlington House*, London 1931, Second Edition, Intro, XIX, Pl. 57. *Mihrab* of faience mosaic, XIVth century, Pennsylvania Museum.

32. Lammens, H., *Ziad ibn Abihi Rivista degli studi orientali*, See also *AEL*, Book 1, Part 2. The term *Majlis* is derived from *Jalasa* (جلس), sitting place which recalls *Makam* (مكن) or house. But there is a sharp difference between the two; for *Majl* pre-supposes a large assembly of the people of a particular clan for deliberations and *Makan* indicates a family close circuit get-together.

33. *Ziad*, p. 244. He quotes Jarir as follows : "Behold my ancestors; these *maglis* (*majlis*) enjoyed the privileges of the mosques."

34. Muhammad 'Ali; *The Holy Qur'an*, London, 1917. In Surah V. 93, Mecca is referred to as "the metropolis".

35. Kasdorff.

36. *Arabian Nights,* vol. 6.

37. Levi-Provencal, *Zawiya* in *EI,* vol. IV, Part 2., 1934. The Greek equivalent to *Zawiya* is gonia γωνίά (زاويه)

38. *Ibid.*, pp. 1220-1; See also Dozy, R., *Supplement aux Dictionnaires Arabes*, Paris, 1927, vol. I. pp. 615-16. He calls it Petite mosquee or the little mosque.

39. *AEL*, vol 3, Book 1. Part 3 1869.

40. Schwarzlose, F. W. *Die Waffen der alten Araber aus ihren Dichtern dargestellt*, Leipzig, 1886, pp. 212ff. See also Freytag, G. W., *Einleitung in das studium der arabischen Sprache bis Mohamed und zum Theil spater*, Bonn, 1861.

41. AEL. Also see Wensinck, A. J., *Handbook of Early Muhammadan Traditions*, Leyden, 1927. In between the worshippers and the *sutra* a space enough to allow a sheep to pass is generally maintained. Lane, E. W., *The Manners and Customs of Modern Egyptians*, 5th Edition, London, 1923.

42. Goldziher, I., *Muhammedanische Studien*, vol. II, Halle, 1890. See also Herzfeld, E., *Geschichte der stadt Samarra.* Mas'udi relates (*muruj*, vi, p. 77) that the robe, *qadis* and mikhsara of the Prophet were burned by the Umayyad Marwan but recovered by the 'Abbasids.

43. Wensinck, A. J., *Sutra,* in *EI*, vol. IV.

44. Gayet, Al., *L'Art Arabe*, Paris, 1893, writes, the incense burner of a woman in charge of burning perfume before the Ka'ba communicates the fire to Soutrah (*sura*) which is the veil hung from the door and the whole sanctuary collapsed, burnt from top to bottom. See also Wensinck, A.J. *The Ideas of the Western Semites concerning the navel of the earth*, Amsterdam, 1916.

45. Rhodokanakis, N., *Zur semitischen sprachwissenchaft*, in *W. Z. K. M.*, 1911. He discusses in detail the ancient oriental custom of hanging carpets behind the throne with a view to magnify the glory of the ruling sovereign. See also Gayet.

46. Becker, C. H., *Vom Werden und Wesen der islamischen Welt, Islamistudien*, Leipzig, 1924 See also Mecler, *Zur Geschichte der Kanzel in Islam* in *Der Islam* XIII, 109-12; see also Becker, *Die Kanzel im Kultus des alten Islam*, in *Orientalische Studien*, Theodor Noldeke, Gieszen, 1906, pp. 468-472. He thinks that both *minbar* and stick perhaps strictly belong to early Heathenism. They naturally and closely resembled the throne and the sceptre.

47. Rhodokanakis connects the throne placed in the throne-recess with the minbar in a *mihrab*, the difference lying only in the *minbar* being placed outside the niche in a mosque. It is, also very interesting to note that the *minbar* is found inside the *mihrab* in a mosque at Aden, as reported by Serjeant, (*op.cit.*, p. 447). This practice was repeated in the Masjid--Jami, of Kirman and the Masjid-i-Jami' of Yazd. (*SPA*, vol. IV, pls. 40 and 443). Briggs (*Architecture*, p. 28) says, "In ancient Arabia the minbar had been the Judge's chair, and as the leader of Islam gradually became a great temporal ruler, his simple rostrum, while retaining its Arabic name, developed into an ornate pulpit or throne".

48. Lane reports that in Egypt, a wooden sword was carried by the Khatib as he ascended to and descended from the minbar (fn.41)

49. John Walker published this coin. (*A Catalogue o the Arab-Sasanian Coins in the British Museum*), London, 1941, pl. XXXI, 5.

50. Dalman, G., *Neve Petra-Forschungen,* Leipzig, 1912, Abb. 81; Wensinck, A.J., *Animismus und Damoinenglaube im Untergrunde des Judischen und Islamischen Rituellengebets* in *Der Islam,* Band, V, Heft, 1, p, 228; also his *Harba* in *EI, op. cit.*, p. 266. He informs us that when the Prophet went out to relieve nature an 'Anaza was carried behind him. It deliberately implies thwarting devilish interference on occasions like the one mentioned. Bukhari, *Kitab al-Wadu,* Bab 17; Muslim, *Sahih,* Nawawi's commentary, Cairo, I, p. 337. Lane quotes the Prophet "as blood is circulating in person, so circulates the devil around them". (Goldziher I., *Beitrage zur Geschichte der sprachgelehrsamkeit bei den Araben,* Wien, 1872, p. 621).

51. Benzinger, I., *Staff,* in *JE,* which is called "*Shebet*", "*matteh*", vol. XI. Herodotus (i, 195) and Strabo (XVI, 746) say that among the Babylonians every man carried a ring and a staff. It was a universal custom among the ancient Hebrews to carry a staff. Gen. XXXVIII. 18— a custom dated back to their nomadic life. *See* also *sceptre,* in *EB,* 1911, vol. 24, p. 309. is arod which is regarded as a token of authority among the early Greeks; it was a long staff used by aged men. Later on it came to be used by Judges, military leaders, priests and others.

52. Richard Burton, F., *Personal Narrative of a Pilgrimage to Mecca and Madina,* vol. 1, London, MDCCCXCIII.

53. Burton says that Black Stone consists of three large pieces and several small fragments stuck together and surrounded by a ring of stone.

54. *Mosque* in *DA.*, vol. V-VI. The author says, "The mosque is of various and almost of any shape. It is in fact a wall; and in poorer villages of India, the people dig a ditch, white washed it, ornament it with flowers and convert it into a mosque. The next thing is to make a platform or pavement against the wall for the worshippers. In populous places it became convenient to enclose the space, which was done by building a wall so as to form a courtyard. This done, it became a complete mosque, such as one was called Eadgah or Eedgah". In fact mosque which demands certain set of requirements is an extension of 'Idgah.

55. *Bukhari,* vol. I. p. 80. (Bulaq Edition).

56. Diez, E; *Madjid* in *EI,* vol. III, part I, 1936,

This Chapter was published in the Pakistan Quarterly, vol. XV. No. 3, 1967, pp. 11-20 under the title of "Name and Form of the Mosque".

2

EVOLUTION OF MOSQUE ARCHITECTURE

THE Mosque constitutes one of the most highly developed forms of religious architecture. Unlike Stonehenge, the Greek Altar, the Roman Basilica, the Jewish Tabernacle, the Christian Church, the Buddhist Temple and Hindu Shrine, the Mosque was not the product of a highly organized liturgy and priesthood. Islam condemns all self-centred individualistic types of worship. It postulates unified congregational worship rather than communal prayer. With the rapid expansion of the Muslim community through conquests as well as missionary activities, it became necessary to set aside an enclosed area in cities or large towns for the purpose of this established communal worship.[2]

The set form of the daily and weekly worship demanded certain architectural features or rather furniture. The Mosque is not merely a place of prostration, facing Mecca. The Friday *Khutba* is of great importance as the regular acknowledgment of the authority of the Caliph and Governors, and was so from very early times. Hence the Mosque must contain a pulpit (*minbar*). Since the traditions, also, require ablution before prayer, the Mosque must contain a tank or fountain (*hawz*), and since Friday prayers are communal and attendance is obligatory, the Mosque must be spacious enough to contain the Faithful, arranged line by line facing the *qibla*. The *Mihrab* cannot be compared with the Christian altar, since it only indicates the *qibla* and does not represent or symbolise godhead. As Bertram Thomas puts it,—"Saracenic (Muslim) architecture came to have its birth and development in the Moslem congregational place of worship, the Friday Mosque."[3]

Despised by his lawless kinsmen, as has been stated earlier, the Prophet sought refuge in Madina in A.H. 1/A.D.622. The first thought that entered his mind upon his arrival was to erect a shelter for himself, his family and companions.[4] He purchased a plot of land and laid the foundations of a living-apartment in the customary fashion of the day.[5] Tradition has it that the courtyard he erected has survived. The enclosed square measures 100 cubits each way. This courtyard later on assumed great public importance.[6] In the embryonic stage of mosque architecture, the courtyard with its surrounding wall embodied the idea of both *sutra* and *qibla*.[7]

Muir observes that Madina has a sultry climate with occasional rainfall which necessitated the erection of some kind of shelter.[8] But, as a matter of fact the worsshippers complained to the Prophet about the scorching heat of the sun at the times

of prayer. Therefore, a portion of the open spacious courtyard towards the north was roofed over for the congregation of the Faithful. In its rudimentary form, this sheltered portico came to be known as *liwan*.[9] The *liwan* was supported by palm-trunks used as columns and roofed over with wooden planks, palm leaves and branches, daubed with mud and again a thatch over-all.[4] Hence the emergence of the *liwan* or portico may be sought in the practical purpose of providing shelter for the Muslim congregation against sun and rain.

Physical needs, also, led the Prophet to accommodate the members of his family in a roofed shelter, known as *hujra*, hastily built against the outer wall of the courtyard at the south end of the eastern side.[10] Approached from the courtyard, this comprised nine separate rooms, resembling, according to Briggs, the rude hovels of modern Egypt, derived from the ancient Arab dwellings known as *Dar*.[11] The Prophet also provided accommodation for his Companions or Sahaba in the south-west corner of the court, known as "the People of the Portico." (*Ahl as-Suffa*). The existence of these two sets of living apartments within the walled enclosure indicates the domestic character of the Prophet's building plan at Madina.[4]

The Prophet here brought into being a set form of ritual prayer associated with Friday as the Muslim Sabbath. In the initial stage he imitated the ancient Jewish practice, instructing his followers to turn their faces towards Jerusalem at the time of prayer.[12] Soon after his arrival at Madina, the need of a distinctive *qibla* for Islam was felt, and acting on Divine revelation he changed the *qibla* from the Temple of Jerusalem to the Holy Sanctuary at Mecca and conducted the prayers himself, facing south. This memorable event took place in A.H.2/A.D.624.[4] Henceforth, the Ka'ba stood forth as an unchallenged *qibla* for the whole Muslim world, marking "a new political and moral orientation".[14]

The change of the *qibla* necessarily wrought a great transformation in the architectural arrangement of the Madina Mosque. The *liwan* was necessarily transferred from the north side of the courtyard to the south.[15] Richard Burton writes—"Instead of a Mihrab or a prayer-niche, a large block of stone directed the congregation, at first it was placed against the northern wall of the Mosque and it was removed to the southern when Meccah became the Kiblah".[16] Diez rightly says that "the Mihrab appears for the first time in the form of a stone in the Prophet's Mosque."[17]

The *qibla* having been fixed, the need to find an independent form of calling the Faithful to prayer,[18] distinct from the Christian bell and the Jewish *Shofar*, was keenly felt.[19] The Prophet, therefore, instructed Bilal to chant the call to prayer or the *'azan* from the highest roof in the vicinity of the courtyard of the Mosque.[20] This primitive form of Mazina contained the germ of the elegantly tapering minarets of the developed Islamic mosque of the future.[21]

The traditions have it that the Prophet leaned against a post while preaching the *Khutba* or Friday Sermon.[22] With the advancement of his age, the Prophet introduced

in A.H.7/A.D. 628-9 a wooden pulpit (*minbar*), consisting of two steps and a seat (*mak'ad*).[23]

Becker,[24] Lammens,[25] Horovitz,[26] and a host of other historians[27] consider the *minbar* as the vertiable symbol of the Prophet's sovereignty. They regard it as a Judge's seat or a throne.[28] In point of fact, the introduction of the *minbar* was an afterthought and took place only in A.H.6/A.D. 628., that is, six years after the foundation of the Madina Mosque. Its introduction was probably due to the failing health of the Prophet.[8] Curiously enough, the Caliph 'Umar disapproved of the *minbar* and ordered his Governor 'Amr Ibn al-'As to destroy the pulpit of his Mosque at Fustat, Cairo.[30] Creswell traces the *minbar* back to the Coptic Christian prototype, discovered by Quibell at Saqqara.

Ablution[32] being a pre-requisite of prayer, provision for the ritual purification was made by the Prophet. It later took the form of a fountain or *Qubbat* placed in the open courtyard of the Mosque.[4]

Caetani[33] and Lammens[25] argue that the building required by the Prophet was simply a *Dar*, originally a private dwelling. Margoliouth's story that the Prophet utilized a barn or store house which had served for drying dates and which was to be had for a reasonable sum seems far-fetched.[10] Muir says, "Bricks were prepared and other materials collected".[8] According to Creswell, the Prophet's buildings were based upon the old Arab kind of dwelling, *'ahl al-Madr'*, that is, made of mud.[33]

Although the traditions refer to the domestic activities, the fact that the Prophet's building had certain of the rudimentary features of a Mosque, such as, *sahn*, *liwan*, *qibla*, *minbar*, *mihrab* can hardly be disputed.[34] In any case, it undoubtedly formed the prototype for the architecture of all later Islamic Mosques.[35]

The patriarchal simplicity of the oldest of the Islamic Mosques remained unimpaired for more than three quarters of a century, until the reign of the Umayyad Caliph Walid I (A.H. 86-96/A.D. 705-15). It is clear that individuals or groups of Muslims can fulfil their obligations of prayer anywhere they like, provided the attention of the worshippers is not distracted. As has been said, the mosque was the central feature of the Islamic way of life and it formed a necessary part of any settlement, village or city or palace. On the conquest of new areas, Mosques were immediately built, such as those at Bosra, Kufa, Fustat.

Soon after his accession to the Caliphate, 'Umar ibn al-Khattab (A.H. 13-23/A.D. 634-44) started to enlarge and rebuild the original mosque of the Prophet at Madina, adding among other features such as a paved floor.[36] According to Creswell, this paved floor marked the real starting-point of the evolution of the Mosque, embodying its public character.[4]

The Caliph 'Uthman (A.H. 23-35/A.D. 644-56) again carried out the task of the expansion and renovation of the Madina Mosque. The roof was strengthened and the pillars of Indian teak were replaced by columns of cut and dressed stone.[16] 'Uthman is also credited with the introduction of stone carving and inlay work.[37] The *minbar*

destroyed by the order of the Caliph 'Umar was restored to the Mosque of 'Amr at Fustat.[4] Moreover, as Saladin puts it, "Osman is said to have built porticoes to the temple at Mecca in the year of A.H. 26/A.D. 646-47 and this is the earliest recorded instance of this feature perhaps for a shelter from the Sun."[38] Although less ambitious than the projects of his kinsmen Mu'awiya (A.H. 41-60/A.D. 661-80) who built a palace, 'Uthman may be considered to have been the first to change the character of the Madina Mosque, making many architectural innovations.

Unlike Syria, where mosques were mostly adaptations of earlier non-Muslim buildings 'Iraq witnessed the foundation of new cities or *hiras* founded with mosques as necessary centres of community life. The Mosque of Bosra, the first religious building outside the Arabian peninsula owes its origin to 'Utba ibn Ghazwan. Founded in A.H. 14/A.D. 635, it was originally no more than a "marked off" area or *ikhtitat*, which was later on enclosed by a fence of reeds.[37] The combination of the Governor's residence (*Dar al-Imara*) with the Mosque demonstrates the fact that the political and religious functions and aspirations of Islam are inseparable. Abu Musa al-Ash'ari, the Governor of 'Iraq under Caliph 'Umar I, enlarged and renovated 'Utbah's Mosque at Basra, adding the *liwan* and the *sahn*

After the capture of Cetsiphon (Mada'in) Sa'd ibn Abi Waqqas in A. H. 16/A.D. 637, the Muslim militia performed their congregational prayers in the Sasanian Palace of Taq-Kisra, built by Shahpur (A.D. 241-272). With the foundation of the city of Kufa, Sa'd set himself to the task of erecting a Mosque by marking out an area 200 cubits each way, demarcated by bow shots.[39] The use of bow and arrow in determining the dimensions of this Mosque may perhaps, be linked with the principle of *sutra*, fundamental to the concept of the *Masjid*, as stated before. A striking innovation here is the covered colonnade or *zulla*, running the whole length of the southern side.

The Mosque of Kufa is perhaps the earliest known example of the use of materials taken from non-Muslim builders. These include re-used columns of Persepolitan type taken from the ruins of the Lakhmids at Hira.[5]

Lammens' contention that the roof of the Mosque was decorated with frescoes and gold mosaics, realized by means of Romano-Byzantine techniques, has been contradicted by Creswell, who says that the gable roof rested on the superimposed columns directly without the intervention of arcades. In any case the unique properties of this building are due to the consummate skill of the Persian architects. Henceforward, Persian influence is apparent in almost all Islamic work.[41]

Built in A. H. 21 (A.D. 641-42, by 'Amr ibn al-'As, the Mosque of Fustat is one of the earliest known examples of a covered prayer hall in early Muslim architecture. Similar covered Mosques of later date are to be seen in the Jami Masjid of Gulbarga (A.H. 769/A.D. 1367), the Khirki and Sanjar (Kali) Masjids (A. H. 766-776/A.D. 1364-65) at Delhi, the Chamkatti Masjid (A.H. 883/A.D. 1478)' the Tantipara Masjid (A. H. 885/A.D. 1480) and the Lattan Masjid (A. H. 889-925/A. D. 1493-1519) at Gaud. In other words, the style originating at Fustat survived.

The Fustat Mosque marks a further development in the lay-out of the Mosque, by having a *mihrab* in the form of a flat niche. It, also, is rectangular in plan, as many Mosques in Persia and India are. Futhermore, its enclosing wall was surrounded by a pathway and the mosque itself was roofed over by split palm trunks, supported by pillars of palm trunks, recalling a similar arrangement at Madina.

Gertrude Bell regards the primitive Mosques of Madina, Basra, Kufa, and Fustat as approximating to the primitive Arab unadorned architecture of sun-dried bricks and palm trunks. She says that they fulfil only the simplest needs. But the point is that they did fulfil the needs of Islam. The *mihrab* was in process of evolution but the *minbar* and the *hawz* were already there.

Mu'awiya, the founder of the Umayyad Caliphate, is credited with the further innovation of the *Maqsura*. According to Ibn Khaldun, "..the enclosure (*al-bayt al-Maqsura*) in which the Sultan stands during public prayers is an enclosure which includes the *mihrab* (prayer-niche) and its neighbourhood." He further adds, "The invention of the *Maqsura* dates from the time when the Empire had become powerful, and when luxury had begun to appear.." The *Maqsura* has persisted for instance, in Cordova and Kairawan, but it is not to be found in Persia or India. Ibn Khaldun is incorrect when he says that in spite of the disintegration of the 'Abbasid Empire and the number of dynasties which subsequently arose, the *Maqsura* continued to exist in all countries of the East.[4]

To summarize, it is clear that the real beginning of substantial Muslim architecture, in contradiction to the rude hovel type of early mosque, is to be found in Ziyad's reconstruction of the Mosques of Basra and Kufa. As Creswell puts it, "the first Mosques to be worthy of the name of architecture were the second great Umayyad Mosques at Basra (A.D. 665) and Kufa (670)."[43]

Ziyad ibn Abihi renovated the existing Mosques of Basra and Kufa with a view to eclipse the overriding power of the tribes. In other words, he intended that the reconstructed mosques should eclipse the local tribal *Masjids*. Lammens says, "There was a need to eclipse in proportion and splendour the Masjids of the particular clans, which were only private meeting places difficult to control and often quite hostile to authority."[25]

Ziyad, inspired by the splendour of Parthian and Sasanian architecture, replaced the palm trunk supporting members of the mosques of Basra and Kufa with marble columns, quarried from Mount Ahwaz.[44] He also introduced the ancient Mesopotamian technique of building in brick with gypsum mortar in the renovated Mosque of Basra. But the chief merit of his work, probably lies in the invention of the *maqsura*, which first appears in this mosques.[45]

Ziyad's Mosque of Kufa has been described by Ibn Jubayr in 1184. De Goeje's translation of the passage concerning the Mosque runs as follows : It is "a vast mosque, the *qibla* side has five aisles, whereas the rest have two only; the aisles are supported by columns like masts, composed of hard blocks of stone superimposed piece by piece,

bedded on lead, and not surmounted by arches; extremely high, they go up to the ceiling of the mosque. I have nowhere seen a mosque of which the columns are so long or the ceiling so elevated".[19]

This important passage is unfortunately obscure in its details. All that can be gathered from it is that the height of the colonnade was striking : that the drums of the columns were bedded in lead and that the columns were cylindrical. Judging from its present state, it would seem that this building has been completely reconstructed since Ibn Jubayr wrote this description.

The Mosques of both Basra and Kufa had a *Dar al-Imara* attached to the *qibla* wall, communicating with the *liwan* by a doorway.[46] These 'Iraqi mosques square in plan, built with burnt bricks and gypsum mortar and supported by columns, were certainly roofed with timber. They are reminiscent of the hypostyle halls of the Parthians and the Sasanians.[47] They also anticipated not only the Mosque of Wasit but also the 'Abbasid mosques of Baghdad and Raqqa, and early Indian Mosques at Mansura and Banbhore which are in ruins.[48]

The later mosque of Fustat as renovated by Maslama ibn Mukhallad had minarets, placed at every corner of the building, and these seem to be the earliest known examples of their kind in Islam. As Maqrizi puts it, "So Maslama was ordered by Mu'awiya to build *sawami* (pural of *sauma'a*, minarets or towers) for the call to prayer. So Maslama constructed four *sawami'* for the mosque at its four corners. He was the first to construct them in it, there having been none before his time".[4] In all probability, the idea of these corner minarets may have been suggested by the four square towers at the corners of the ancient pagan Temenos, which was converted into a Christian Church at Damascus, (1st cent. A.D.) and later on converted by al-Walid into a mosque.[49]

Corbet's suggestion that Maslama's mosque at Fustat was encrusted with raised stucco work has been criticized by Creswell on the ground that this technique did not appear in Muslim architecture before the Mosque of Samarra (A.H. 232/A.D. 847), being also found later on the Mosque of Ibn Tulun at Cairo (A.H. 265/A.D. 879).[4]

Unlike the 'Iraqi mosques built on newly cleared sites with freshly quarried materials, the early Syrian mosques were merely improvisations, such as the Mosques of Homs (A.H. 97-98/A.D. 635), Hama (A.H. 15/A.D. 636-37) and Aleppo (A.H. 97-98/A.D 715-16).[19] They certainly mark a sharp departure from the barbaric simplicity of the early Islamic mosques. Umayyad architecture is distinguished by its boldness of conception and richess of ornamental details of which the Dome of the Rock and the Great Mosque of Damascus provide good examples. The latter Umayyad monuments, drawing inspiration from classical architecture, of which remains abounded in Syria, namely, at Palmyra, Baalbek, Damascus, Jerusalem, etc., redirected the entire development of Muslim architecture. This is the great formative period.

'Abd al-Malik's reign (A.H. 65-86/A.D. 685-705) was an active one; he made an attempt to change the *qibla* by replacing Mecca by Jerusalem as it had been before

the Prophet's establishment of the Ka'ba at Mecca. With a view to achieving this, he built the magnificent Dome of the Rock and the Mosque of Aqsa in the *Haram Sharif* or Sacred Enclosure at Jerusalem.[50] However, the earliest Maslim building at Jerusalem is the mosque built by Caliph 'Umar and this was clearly not a conversion of an older Church or Synagogue.[51] 'Abd al-Malik's attempt to reinstate Jerusalem as the *qibla* is obviously of great importance. He must have done it primarily for political reasons, although religious motive might have played some part. It is, however, remarkable that he was able to make such an attempt to change the Prophet's established ordinance.

Built on the site of the Royal Stoa of Herod within the Holy Enclosure, the Mosque of Aqsa marks an important stage in the evolution of Mosque architecture.[19] It incorporates building materials from the destroyed Church of St. Mary the Virgin, and its plan clearly demonstrates its alignment with the adjoining Dome of the Rock. The planning of the two buildings may well have been contemporary.

Of the Mosque of Aqsa, Richmond says, "It would seem, then, that by the time 'Abd al-Malik had completed the great Mosque of Jerusalem, the several needs of a Moslem place of congregational prayer had all found some form of architectural expression. A walled enclosure gave seclusion; a roofed sanctuary gave protection from the weather; a pulpit accommodated the preacher; a basin for ablution enabled the faithful to prepare for prayer; towers enabled the call to prayer to be made from a commanding height; cloisters protected the congregation from the weather, after entering the open enclosure from the vaulted or arcaded streets of the town on their way to the roofed sanctuary".[30] However, both the Dome of the Rock and the Mosque of Aqsa demonstrate striking features which may be traced to Graeco-Roman and Byzantine architecture, namely, wooden tie beams, Corinthian capitals, dressed stone columns formed of cylindrical drums set in lead, polychrome and gilt mosaics, with vine scrolls etc.[52] The Dome of the Rock is the earliest octagonal building roofed over by a ribbed double dome of wood, known in the history of Muslim architecture.[53] The construction of this roof marks a great innovation. As Richmond says, "The Dome of the Rock affords a good illustration of the increased familiarity, brought about by the establishment of Islam, between the traditions of stone building and the traditions of brick and its derivatives".[30]

Built by Hajjaj ibn Yusuf in A.H. 85/A.D. 704-5, the Mosque of Wasit bears a close resemblance to the early Islamic Mosques of Madina, Basra and Kufa in its ground plan and building technique. It is one of the many mosques built of brick in Mesopotamia. In fact, it paved the way for the brick built Mosques of Baghdad, Ukhaidir, Raqqa and Samarra.[19]

The reign of Caliph Walid I (A.H. 86-96/A.D. 705-15) may fairly be regarded as epoch-making in the history of Muslim architecture, for he introduced a concave niche, marking the *qibla* in reconstruction of the Prophet's Mosque at Madina in A.H. 89-91/A.D. 707-9. The work was carried out by 'Umar ibn 'Abd al-'Aziz and led to the final formulation of mosque planning.

The concave *mihrab* later on appeared in the Mosques of 'Amr at Fustat, rebuilt by Qurra ibn Shariq, which is dated A.H. 92/A.D. 710-11 and also in the Mosque of Damascus (A.H. 86-96/A.D. 705-15) and in the Mosque of Khan al-Zabid and 'Umm al-Walid both erected in Transjordan which are dated after A.H. 89-90/A.D. 707-9.[4]

The Great Mosque of Damascus also, built by Walid I, provides the type of later Mosque architecture. Following the precedents set by the early Syrian mosques, the Mosques of Damascus was founded on the enclosure of the Church of St. John, the Baptist, built by Theodosius (A.D. 379-95), which was originally a pagan temple dedicated to the Sun or Jupiter. Collecting masons and craftsmen from Persia, India, Egypt and Greece and pooling all their resources al-Walid set himself to build a mosque which would surpass the splendid Christian Churches in Syria. Thus the great Mosque of Damascus demonstrates not only the political power and prestige of the Caliphate, but also knits together the features of the earlier congregational mosques into a single symmetrical architectural whole.[54] Rectangular in plan, Walid's mosque consists of a courtyard, surrounded on the east, west and north by colonnaded arcades or *riwaqs*, the deeper southern side being occupied by the *liwan*. The *liwan*, which is divided by a broad nave running north and south, consists of three aisles supported by two transverse rows of columns with Corinthian capitals of Byzantine type. Each arcade carries eleven semi-circular arches, springing from polished marble columns, built up from cylindrical drums. The aisles are gable roofed.

The most impressive feature of the *liwan* is its triple arched facade, dominated by its great central arch. These arches are surmounted by an upper bearing arch which is slightly pointed and very slightly stilted.[19] The dominating feature of the nave leading to the *mihrab* is the wooden double dome placed at its crossing with the *liwan*. It springs from a drum, the transition from the square to the circle of the dome being attained by arched squinches.[4]

The Mosque of Damascus exerted a profound influence on the development of Mosque architecture. It fulfils the physical needs of a mosque, with its roofed *liwan*, arcaded porticoes, marble pavement and *maqsura*, as well as the ritual needs in the form of a concave *mihrab*, minarets at the four corners, *minbar* and fountain for ablution. Moreover, unlike the Mosque of Aqsa, the Mosque of Damascus is situated in the centre of the city, approached through axial extrances, a marked improvement over the earlier mosque plan. Above all, it demonstrates, as Richmond says, "a majesty and symmetry of plan and a splendour of ornament".[30] In short, it foretells the full development of Mosque architecture in times to come. Creswell stresses the paramount influence exerted by the Mosque of Damascus. The *liwan* cut by an oblong central nave occurs in the Mosques of Qasr al-Hair (A.H. 110/A.D. 728-29) and Diyarbakr, (A.H. 484/A.D. 1091-92) and also in the Adina Masjid at Hazrat Pandua (Fig. 3 and Pl.I.) (A.H. 776-86/A.D. 1374-84) and Gunmant Masjid (A.H. 889/A.D. 1484) at Gaud (Fig.).12 The three aisle deep *liwan* is also represented at the Mosques at Qusayr al-Hallabat (A.H. 89-90/A.D.707-9) and the 'Abbasid mosque at Raqqa (A.H. 156/A.D.

772)[19] as well as at al-Azhar (A.H. 360-1/A.D. 970-72) and in the Mosque of al-Hakim in Cairo (A.H. 380-404/A.D. 990-1013).[30]

Although the rectangular plan became the accepted form of mosque planning, the traditional square plan of the ancient Mosque of Madina and the Mosque of Harran (A.H. 127-33/A.D. 744-50).[19] reappeared in the 'Abbasid Mosques at Baghdad (A.H. 145/A.D. 762-63) as well as in the Mosque at Hazara near Bukhara (A.H. 2nd or 3rd century/A.D. 8th or 9th century) and, also, in the Chamkatti Masjid (A.H. 883/A.D. 1478), the Chika building (A.H. 818-36/A.D. 1415-32), the Lattan Masjid (A.H. 899-925/A.D. 1493-1519), all of which are at Gaud.[55] (Figs. 13 and 14). Reflecting the development of Mosque architecture Van Berchem observes, "The style and methods of construction were modified during the course of time, particularly as to the choice of materials, gateways, facades, and minarets, profile outline of the interior arches and decoration; but the general plan of the Mosque remained the same until the Ottoman conquest."[56]

The inception of the 'Abbasid Caliphate marked the real starting-point of Islam's ever-growing cultural relationship with Persia. As Jackson puts it, "if the Arabs conquered Persia, they received more in art from her than they gave...."[57] Unlike the Umayyad architecture, which was primarily based on the marble and mosaic traditions of Byzantine art as found in Syria, 'Abbasid architecture owed its elegance and perfection to the ancient Persian tradition of brick building with its concomitant ornamental styles.[58] Thomas describs it as "a tradition rooted in the mud plains of Mesopotamia extending eastwards through Persia and across the Oxus to Samarkand, the old Babylonian-Sasanian brick tradition, the appeal of which lay in its lighter shapes under a mantle of exquisite ornamentation of glazed tiles and mosaics, sumptuous interiors of stucco, carved and painted panelling, coloured glass, and similar features of a richly decorative Oriental art".[59] In other words, the technique of brick building has the great achievement of Islamic architecture, just as its magnificent use of decoration is derived from Persia.

'Abbasid architecture must, therefore, be considered as a major breakthrough in the history of Islamic art. The 'Abbasid monuments demonstrate distinctive features, such as the use of the four-centred pointed arch, the arched squinch, the tunnel vault, the stalactite pendentive as well as the decorative use of stucco ornament and glazed tiles.[19] Excepting a few early monuments at Qazvin and Istakhr which were raised upon Persepolitan columns with characteristic bull-headed capitals,[60] the 'Abbasid Mosques at Baghdad, Raqqa, Ukhaidir, Samarra and Abu Dulaf were wholly contemporary in technique, planning and style.[61]

The citadel Mosque of Baghdad (A.H. 145-50/A.D. 762-67), built by Caliph Mansur, founder of the 'Abbasid dynasty, conforms to the square plan of the 'Iraqi Mosques. Al-Khatib writes, "Abu Ja'far al-Mansur had established the principal mosque..incontact with his palace—it is (what is now known as) the Old Court—he built it with sun-dried bricks and clay; its dimensions were as follows: "the dimensions of the palace of

al-Mansur were 400 by 400 cubits and those of the mosque 200 by 200; and the columns of wood of the mosque each consisted of two pieces.."[37] It recalls Ziyad's mosque of Kufa in the use of super-imposed wooden columns, presumably supporting a flat roof.

The Mosque of Raqqa, built by Sa'd ibn 'Amir ibn Huzaym during the reign of the Caliph al-Mansur in A.H. 155/A.D. 772 is also rectangular in plan. It resembles the mosques of Baghdad and Ukhaidir in the columns which run transversely across the *liwan*, the bastioned walls of mud and bricks and the use of end piers in the *liwan* facade. Like the Mosque of Baghdad, the Raqqa Mosque has four circular buttress—like towers in between the four round corner towers.[5] The aisled *liwan* is entered from the courtyard by an arched screen pierced by eleven openings. The arches of the screen spring from rectangular piers, placed transversely to the *qibla* wall. At the two ends of the arched facade of the *liwan* there are two columns decorated with acanthus capitals in stucco, which bear close relationship with the arrangements in the Palace Mosque of Ukhaidir. This Mosque provides an interesting example of the blending of Syrian and Mesopotamian forms. As Creswell puts it, "The nearly square plan of the mosque and *sahn* (courtyard), the bastioned walls, and the large number of entrances (instead of the three axial ones usual in Syria) is Mesopotamian, likewise the combination of material—mud brick for the walls and burnt bricks for the arches—a combination found in the Nestorian churches of Hira, but the triple-aisled sanctuary and the parallel gable roofs which covered it (in contrast to the flat roofs of 'Iraq) are Syrian features which we have already met with at Damascus and Qasr al-Hair".[19]

The most significant feature of the early phase of 'Abbasid architecture is the introduction of the four-centred pointed arch in sharp contradistinction to the two-centred variety to be seen in the *liwan* arch of the Mosque of Damascus. This innovation is demonstrated in the arch of the Baghdad Gateway of the citadel.[62]

In Mesopotamia, as Gertrude Bell writes, "the Mosque builders were guided by a scheme of extreme simplicity, the details of which were executed according to the nature of the building material which was available."[5] Persian brick laying made the four-centred arch possible. This striking phenomenon is also dispalyed in the Mosque of Ukhaidir, built by 'Isa ibn Musa, during the reign of al-Mahdi in the year A.H. 162/A.D. 788. Rectangular in plan, the *liwan* of the Mosque is tunnel-vaulted. The *liwan* is formed by a single-vaulted aisle of five arches on the *qibla* side, resting on round columns of rubble construction. These were also vaulted *riwaqs*, surrounding a rectangular *sahn* on all sides, except the northern side.[37] The most curious feature of the Mosque besides the tunnel vault is the rectangular *Mihrab* covered by an alcove carried across the corners on horizontal brackets, which served as a prototype for later Persian and Indian Mosques, as found at the Tarik Khana at Damghan, the Great Mosque at Samarra, the Masjid-i-Jami' at Nayin as well as at the Jaunpur mosques and the Mosques at Ahmadabad.

Persian artistic infiltration into Muslim architecture was further stimulated by the transfer of the capital from Baghdad to Samarra by al-Mu'tasim in A. H. 221/A. D.

836. As Creswell puts it, "Under the 'Abbasids the Hellenistic influences of Syria were repalced by the surviving influences of Sasanian Persia which profoundly modified the art and architecture, and this gave birth to the art of Samarra, influence of which extended to Egypt (Ibn Tulun's Mosque)."[43]

The most illustrious examples of 'Abbasid brick and stucco architecture are the Mosque of Samarra and the Mosque of Abu Dulaf, built by the Caliph al-Mutawakkil. The Mosque of Samarra, (A.H. 234/A.D. 848-49) is a rectangular building of large dimensions enclosed by a surrounding wall. This wall is strengthened by rectangular bastions of red burnt bricks, which may be regarded as modified survivals of the Byzantine rectangular buttresses in the Mosques of Damascus and also Qayrawan (A.H. 248/ A.D. 862-3).[63]

Unlike the wooden columns of the Mosques of Baghdad the flat wooden roof of the Mosque of Samarra is supported by irregular brick piers, resting on square bases. Gertrude Bell informs us that there are four composite piers at the corners of the Mosque. These are composed of three slender marble shafts superimposed one upon the other, and have bell capitals, recalling those in the Mosque of Raqqa, the Nilometer on Rhoda Island in Egypt (A.H. 247-59/A.D. 861-73), the Mosque of Ibn Tulun (A.H. 265/A.D.879) and in the much later capitals of Nur al-Din's Great Mosque at Mosul (A.H. 561/A.D. 1165-66).[64] A more developed form can be seen in the capitals of the attached pillars in the *mihrab* of the Masjid-i-Jami' at Nayin.[53]

The rectangular stucco *mihrab* of the Mosque of Samarra, is flanked by two pairs of columns which are exactly similar to those observable in the *mihrab* of Jausaq-al-Khaqani in Samarra.[65] But the chief merit of the structure rests in the remarkable spiral-shaped detached minaret, known as the Malwiya tower. Its design is often said to be reminiscent of the Babylonian tower or zikkurat, but this comparison is far-fetched. However, this minar does anticipate the similar detached minarets of Persia, Egypt and India.[66]

In general planning and architectural details, the Mosque of Abu Dulaf, built in the year A.D. 860-61, in the newly founded city of Ja'fariya, near Samarra, is a replica of the Mosque of Samarra. It has half-round buttresses, supporting the enclosure wall, such as are to be seen at Baghdad, Raqqa and Ukhaidir. The Mosque of Abu Dulaf has also a detached spiral minaret on a square base, very like the Malwiya minaret on a square base. These detached minarets may have served as prototype of the supposed minar, also detached, on the western side of the Adina Masjid at Hazrat Pandua.

The Mosque of Ibn Tulun, built in A.H. 263/A.D. 876-77, marks a sharp departure from the columnar halls of the Syrian mosques by its universal employment of brick piers to support the roof. The double circuit wall of Tulun's Mosque recalls that of the Mosque of Samarra. Rectangular in plan, the five-aisled deep *liwan* of the Mosque is carried by a double-tiered arcade, resting on rectangular brick piers with engaged columns at the four angles. These arcades support the transverse beams of the timber roof, as in the Mosque of Baghdad. Its detached minaret is reminiscent of those at

Samarra and Abu Dulaf. Concerning the second story of this minaret, Creswell says that it is "part of an original helicoidal minaret copied from the Malwiya of Samarra..."[19]

According to Fergusson[67] the Mosque of Ibn Tulun demonstrates the regular employment of rectangular piers in place of marble columns, as well as pointed arches[68] in place of semi-circular arches and burnt bricks in place of stone and marble.[69] Lane Poole considers the Mosque as "the first example of the universal employment of pointed arches throughout a building 300 years before the adoption of the pointed style (Gothic) in England".[68] It is, also, of course, earlier than the use of the pointed arch in Persia and India.

Ware says, "By the time of Toulun in the ninth century, the new style was apparently so perfected that it only needed encouragement to produce works of great splendour".[70] Persian Islamic architecture is indebted to 'Abbasid architecture for many of its structural and decorative features.[71] These include the four centred pointed arch (the Baghdad Gate at Raqqa), half round buttresses (Baghdad, Raqqa, Ukhaidir), columnar and arcaded halls (the Mosque of Samarra and the Mosque of Ibn Tulun), spiral shaped minarets (Malwiya tower at Samarra), the use of burnt brick as a building material (Baghdad, Samarra, Abu Dulaf, Raqqa, Ukhaidir), the tunnel-valulted *liwan* (Ukhaidir), the use of slender engaged columns (the Mosque of Samarra), the English bond of the brickwork (the Mosque of Ibn Tulun). The use of lustre tiles (the Great Mosque of Qairawan), and rich stucco incrustation (Samarra, Ibn Tulun), is also predominant. Constructional details include the ancient Persian *apadana* Plan (Baghdad and Samarra), the arched squinch (the *Bab al-'Amma*, the Jausaq al- Khaqanior the Palace of Mu'tasim at Samarra, the mosque of Ukhaidir, the mosque of Qairawan), brick domes cased in green or gold tile mosaics (*al-Qubbat al-Khadra* or The Green Dome and the Golden Gate in the Palace of al-Mansur in Baghdad)[72] as well as the use of glass mosaics (Samarra mosque). Other features included the double courtyard mosque plan (Baghdad Mosque) and the rectangular *mihrab* (Ukhaidir, Samarra, Abu Dulaf).[73]

Inheriting these characteristic features of 'Abbasid architecture, Persian Islamic architecture demonstrates greater ingenuity, innovation and elegance in its structural and decorative details.[74] Strikingly enough, Persia did not react passively to the religious impact of Islam. It must be said that ancient Persian tradition stood in sharp contrast with the Arab traditions introduced under the conquering banners of Islam.[75] As Grousset puts it, "While embracing Islam, it [Persia[still remained itself, but the new Persia had gained fresh life from the elements brought to her by Islam from all parts of the world and was emancipated from the narrow nationalism, strengthened by all the energy and love of action which had found expression in Moslem revolutior, and lastly, endowed with a more delicate, restless, and impassioned sensibility. In this respect, Islam played the same part in Iran as Christianity did in the West; in their respective spheres these two Semitic religions created one a Moslem Persia and the

other a Christian Europe, infinitely richer and more complex than Sasanid Iran and the Greco-Roman world had been".[71] Persian royalism survived as well as much of her old religious ideas and traditions.

Geographically, Persia is the meeting place of the trade routes from China to the Mediterranean. Thus, it has been constantly open to contact with foreign cultures. It has also been, in many ways, the meeting point of Chinese and Indian culture. Beyond it lay the easternmost extension of post-Alexandrian Hellenism in the Bactrian principality, and later it was traversed by the Muslim armies and became an integral part of the Muslim world. But it must always be remembered, when dealing with these intrusions of foreign cultures, that Ancient Iran had long been in contact with Mesopotamia, and that its cities are of great antiquity.[76]

Assimilating these foreign influences, Persia was able to evolve a homogenous culture of its own, derived from Achaemenian, Parthian and Sasanian origins. Turning to the Muslim period, it is evident that the uniformity of Persian Islamic architecture reflect Mesopotamian brick building tradition with its concomitant decoration, but that it, also, achieves an individuality which is intrinsically Persian.

The technique of brick building, although not special to Persia, obviously dominated Persian Islamic architecture. It enabled Persian architects to attain structural originality, such as the four-centred arch, the ogee arch, the tunnel vault, the cross vault, large scale domes and double domes. In decoration, from the first, Persian architecture is original. This achievement was the result of the use of certain technical devices, namely, various types of brick bonding, stalactite pendentives, carved terra-cotta plugs, glazed tiles, and stucco decoration.[77]

Diez writes, "The builders of Persia and Mesopotamia in the four and five millennia during which they had been using brick finally developed a wealth of technical resources never equalled elsewhere, and the outstanding specific merits of Persian Islamic architecture are, to a certain extent, attributable, in the last analysis, to the qualities of this material. The monumentality, huge scale, quiet repose, the three dimensionality, well realized though sometimes concealed by a screen, would not have been possible at all in wood, and would have been difficult and costly of achievement in a cumbersome material like stone; but given the technical skill acquired by long experience, the Persian builders could readily attain them, in brick, so inexpensive and easily handled".[78] According to Upham Pope, Persia made three outstanding contributions to Muslim architecture—the development of the pointed four-centred arch and, also, the perfection of domical structure and the enrichment of surface decoration.[79]

From the 8th century B.C. probably on account of the scarcity of timber, Persian builders used the pointed arch as the unit of construction. Later on Muslim builders transformed the ancient Persian catenary (elliptical) arch as seen in the Taq-i-Kisra (2nd half of the 3rd century A.D.) and the Tarik Khana at Damghan (A.H. 130-70/A.D. 750-80) into the characteristic pointed arch, demonstrated by the Masjid-i-Jami' at Nayin (A.H. 350/A.D. 960). Thus, in course of time, the Persian arch, original and

sophisticated in character, penetrated Indo-Muslim architecture, as demonstrated by the arched screen of the Quwwat al-Islam Mosque at Delhi, (A.H. 587/A.D. 1191-2) and that of the Arhai Din-ka-Jhopra at Ajmer (A.H. 595/A.D. 1198-9). More outstanding still, the four-centred pointed arch was disseminated throughout Europe and formed the structural basis of later Gothic architecture.

Employed in Egypt and Mesopotamia as early as the second and third millennia, B.C,. the vault was skilfully developed by the Persian Islamic builders. As Briggs puts it, Persia was the home of "the ogival vault and of the vault carried on piers with the weight resting on the axes : the interspaces being merely shells".[81] Muslim Persia is, therefore, rightly regarded as the disseminator of the vaulting system as an integral element of architecture.[82]

It is also clear that the Persian Islamic architects explored the structural potentialities of dome-construction and were able to introduce a wide range of contours and forms.[83] Byron observes, "It was not until the beginning of the 15th century that the Persians introduced the double-dome with a slightly swelling outline, which then became characteristic of Persia and was transmitted to India for Taj Mahal [A.H. 1044/A.D. 1634], the Tomb of Humayun [A.H. 963/A.D. 1565]....".[53] However, the double-dome[72] was already known in a limited form in India, as shown by the tomb of Taj al-Din Shihab Khan (A.H. 907/A.D. 1501) and the tomb of Sikandar Lodi (A.H. 923/A.D. 1517-18) both at Delhi.[84]

But the excellence of Persian Islamic architecture relies on the rich texture and patterned surface of its brick work. This is brilliantly attained by stucco encrustation, terra-cotta plaques, panelled designs and geometrical repeating patterns, as demonstrated by the Masjid-i-Jami' at Nayin, the tomb of Isma'il the Samanid at Bukhara (A.H. 722-26/. A.D. 1322-26) etc.[53] These monuments show how rich ornamentation can be applied to a well-planned construction. The Persian patterned bricks and polychrome tiles often suggest textile designs, the panels on the sides of the entrances of the 'Ala'i Darwaza at Old Delhi being excellent examples. Yet this richness of decoration enhances the lines of the construction and does not obscure.

The most striking feature of Persian architecture is the decorative use of coloured glazed tiles—an "entourage of colour", as Ricardo puts it. Smith observes, "No impression of Persian brick work would be accurate without mention of the polychromy of tile and mosaic faience in conjunction with which the terracotta coloured brick was often combined."[86] The sumptuous colour-schemes of Persian architectural decoration as seen in the *Mihrab* of the Maidan Mosque in Kashan dated A.H. 623/A.D. 1226, now in the Staatliche Museum, Berlin and the Blue Mosque of Tabriz (A.H. 870/A.D. 1465) appear in the Alhambra (A.H. 629-897/A.D. 1232-1492) in Spain and the Lattan Masjid (A.H. 899-925/A.D. 1493-1519) in Bengal (Pl. XX).[87]

So the Mosque, a new architectural organic unit, essentially Islamic, assumed its characteristic expression in Persia in both structural ingenuity and decorative effect.[88] Stylistically, the Persian mosque may be said to fall into two general types: the *riwaq* or

kiosk type, as Godard suggests; and the Ivan or vaulted portal type.[89] Both the types appear quite early in Persia. Upham Pope summarizes the process:[90] "The first Mosques in Persia, like those throughout the early Islamic world, were very simple, either a domed sanctuary, following existing Sasanian structures like the fire temples or palaces, or perhaps a single vaulted Ivan, or columnar arcades surrounding the court, deeper on the *qibla* side."[53] Distinct from the *riwaq* type of Mosque, Islamic architecture in Persia has fostered another type, namely, the vaulted portal or Ivan. Derived from the *apadana* or large trabeate audience hall of the Achaemenid Kings the Ivan is formed by a rectangular court, enclosed by three walls open on the fourth side and roofed by a semi-cylindrical cradle vault.

It is difficult to say when the Ivan plan came to dominate Persian mosque planning. Godard says that this appeared in the 4th century A.H./10th century A.D. onwards, but this has been denied by Upham Pope who cites the *riwaq* type of mosques at Bamiyan, Nayriz and Farumad which are of earlier date. Moreover, the Ivan-domed type of mosques at Gulpaygan, Ardistan, and Zaware, also, had porticoes or *liwan* arches.[91]

It may be said that the mosques of the pre-Saljuq period (A.H. 23-391/A.D. 643-1000) were marked by the survival of Sasanian features.[53] In the earliest mosque in Persia built at Bam by 'Abd Allah ibn 'Amir is found the Sasanian blind arcading and attached half-round pilasters,[92] which anticipate similar elements at Damghan and Sar-o-Tar (late Sasanian or early Islamic) in Seistan.[93] The Masjid-i-Jami' at Kaj built in A.H. 80/A.D. 700), embodies the Sasanian types of barrel vault, as well as the voussoir arch, the panelled wall surfaces and half-round shafts at the corners of the dome-bearing walls.

The early mosques at Khurasan, built by Fazl ibn Yahya in A.H. 179/A.D. 795 and and also the mosques at Fasa, Turshiz, Nishapur, Marv, Shiraz, Damghan and Nayin were all of the early columnar and courtyard type. Indeed, the Tarik Khana at Damghan dated between A.H. 130 and 170/A.D. 750 and 780 had been described as a Sasanian building upon a conservative Arab mosque plan. It has *riwaqs* on all sides formed by massive round free-standing piers of burnt bricks, carrying a mud-brick tunnel-vault of elliptical shape, the *liwan* side being deeper than the rest. The large size and the vertical placing of the brickwork of the Tarik Khana forcibly recall the Sasanian methods of the Palace of Tepe Hisar at Damghan.[94]

However, the Masjid-i-Jami' at Nayin dated A.H. 350/A.D. 960 replaces the Sasanian catenary (elliptical) vault of the Tarik Khana at Damghan by the Persian pointed vault and also the Sasanian vertical placing of the bricks, also seen at Damghan by normal horizontal courses. An attenuation of the piers is, also, noticed at Nayin. Although the *mihrab* is somewhat subordinate, this is, however, compensated for the rich stucco encrustation of the *qibla* niche, itself, providing a distinct link between Sasanian and 'Abbasid decoration and the later Saljuq style of surface decoration. The Nayin Mosque, also, has one of the earliest tapering attached minarets. This

is three tiered and has a round shaft, resting on a square base leading to the upper octagonal part.

The Jami' 'Atik, built by 'Amr bin Layth in Shiraz, dated A.H. 281/A.D. 894, exhibits the curious feature of clerestory windows in the vaulted roof of the prayer hall.[93] In ground plan it recalls the Ivan-i-Kharkha, and in the foliated scrolls of its stucco decoration it provides the artistic transition between the work at the Dome of the Rock and Masjid-i-Jami' at Nayin.[53]

The importance of the Masjid-i-Jami' at Nayriz dated A.H. 363/A.D. 973-4, rests in the introduction of the Ivan type of mosque which, as has been observed, is a survival of Sasanian architecture.[95] The eighth century Mosque of Nishapur built by Abu Muslim recalls the 'Abbasid Mosques in their wooden roofs, but also provided the prototypes for the 3rd or the 4th century A.H. / A.D. 9th or 10th century mosques in West Turkistan and the 8th century A.H./14th century A.D. mosque of Manama at Bahrayn.[96] The Mosque of Nishapur as reconstructed in the 9th or 10th century had a gable roof, reminiscent of the tent-like dome of the 5th century A.H./11th century A.D., Tomb of Gunbad-i-Qabus at Astarabad. In its turn, this recalls the tomb of Cyrus II at Pasargadae (B.C. 559-529), the earliest surviving gabled monument in Persia.

In contradistinction to these gabled buildings and the Ivan type of mosque, in eastern Persia single-domed buildings were revived on a dramatically large scale, which anticipate similar monuments of Gaud and Hazrat Pandua in Bengal (Figs. 13, 14, 15 & Pls. (XVII, XVIII, XXI). This spectacular building achievement is typified by the mosque of Hazara, near Bukhara and the splendid mausoleum of Isma'il the Samanid also at Bukhara. Of the latter Pope says, "the oldest extant building of the Islamic period that is conserved in both structure and ornament practically in its entirety is the Tomb of Isma'il, the Samanid (d. A.H. 295/A.D. 907) in Bukhara, which represents both a summation of inherited factors and an announcement of new principles".[53] This tomb is a square domed building of burnt bricks, embellished with carved terracotta inset panels. It includes older features, such as the squinched ovoid arches of the gallery and the attached columns in the angles of the octagon, supporting the dome.[97] The method of transition from square to circle by what Upham Pope calls "tripod", namely, a squinched arch with a central rib leading up to its crown anticipates a similar arrangement in the side walls of the vault over the central nave in the Adina Masjid, Hazrat Pandua in Bengal. (Fig. 6)

Besides illustrating a variety of techniques and decorative designs, such as the chevron bond, the Turanian bond, as well as bonding in vertical and horizontal courses, the Tomb of Isma'il recalls the Mosque of Hazara near Bukhara in its external gallery which surrounds the octagon of the dome. This striking feature reappears in the Mausoleum of Oljeitu at Sultaniya in north-eastern Persia, as well as in Mausoleum of Humayun at Delhi. Another conspicuous and often repeated feature is the steep battering of the walls, which is also found in the Tomb of Ghiyas-ud-Din Tughlaq at

Tughlaqabad in Delhi. In pre-Saljuq architecture, therefore, ornament was integrally linked with construction.[53]

After a period during which heterodoxy made itself manifest, the ascendancy of the the Sunni Saljuq Central Asiatic Turks (A.H. 447-700/A.D. 1055-1300) brought about the rejuvenation of Islam and re-established the traditional links of Islam with the ancient Arabo-Persian traditions. The Saljuqs developed "naked brick" architecture,[71] as it has been described by Upham Pope and so, according to him, achieved "the fulfilment of the Iranian architectural genius".[53] Creswell observes, "The twelfth and thirteen centuries witnessed the development of faience decoration, in the form of both tiles and mosaics, which attained a degree of beauty and splendour never seen before".[72] Lustrous polychromy in tilework and gilded and painted stucco are lavishly used. Lofty minarets, superb domes, ribbed vaults, complex squinches or stalactites are the fundamental characteristics of Saljuq architecture. These are all found in the admirable monuments at Shiraz, Yazd, Nayin, Isfahan and Nishapur.[53] Wilber rightly points out, "Seljuq efforts were largely concentrated on the mosque type, which, evolving through the formative centuries of Islam in the several occupied lands, had in Iran been combined with traditional elements of the local pre-Islamic Sasanian architecture to emerge in distinctly Iranian forms".[98]

The Masjid-i-Jami' at Isfahan is an epitome of the Persian Mosque style. According to Diez, the Ivan and *mihrab* court became established in Persia in the Fifth century A.H./Eleventh century A.D. In the Jami' Masjid of Isfahan it was combined with the pillared court. This combination reappears in the Great Mosque of Harat (A.H. 832/A.D. 1428-9). The Mosque of Isfahan in many of its architectural details recalls the 'Abbasid mosque at Samarra. There was no break in the building tradition.

One of the most remarkable features of the Masjid-i-Jami' at Isfahan is its ribbed vaulting, which anticipates the late Saljuq dome of Sanjar (A.H. 515/ A. D. 1222) at Marv. The wide range of this great architectural contribution is striking,;[100] ribbed vaulting does not, however, occur in Europe until the 12th century at Durham.

Ghaznavid architecture is not so much represented by Mosques as by its minars. However, Sultan Mahmud of Ghazna is said to have erected an elegant Mosque, known as "the Celestial Bride" in Ghazna, besides his famous Minar. His son Masud Shah also erected a Minar in Ghazna which anticipates in many respects the Qutb Minar at Delhi.[53]

However, the splendid mosques of Shiraz, Yazd, Isfahan, Gulpaygan and Zavara demonstrate the superb skill of the Saljuq architects as compared with their Ghaznavid contemporaries. The Saljuq mosques illustrate many new architectural features, such as the horse-shoe arch in the Mosque of Qa'la-i-Bist, built by the Ghorids (A.H. late 7th century /A.D. late 13th century), which reappears in the 'Alai Darwaza in the Quwwat al-Islam Masjid at Delhi.[53] It is interesting, that the Mosque of Zavara near Ardistan dating from A.H. 530/A.D. 1135-36, recalls the Masjid-i-Jami' of Isfahan,

being based on the old four-ivan plan, long ago employed at Parthian Ashur, with tunnel-vaulted *riwaqs* running parallel to the transverse axis.[101]

Persia offers another type of Mosque planning, that is, the enclosed and completely roofed Mosques found at Khargird and Yazd.[53] They recall the Mosque of Fustat, built by 'Amr, and provided the prototype for the Jami' Mosque at Gulbarga (A.H. 769/A.D. 1367), the Chamkatti Masjid (Fig. 13 & Pl. XVII), the Lattan Masjid (Fig. 14 & Pl. XIX, XX), the Chhoto Sona Masjid (A.H. 899-925/A.D. 1493-1519) (Fig. 28 & Pl. XXXVIII), the Bara Sona Masjid (A.H. 932/A.D. 1524) (Fig. 24 & Pl. XXXII), all built at Gaud in Bengal.

This "pavilion" type of Persian Mosque is represented in the Mosques at Burujird and Gulpaygan.[53] But curiously enough, the Masjid-i-Jami' at Natanz (A.H. 704-9/A.D. 1304-9), exhibits a domed octagonal sanctuary. The Saljuq Mosques introduced characteristic elements which dominated Persian Islamic architecture from this time onward.[102] The Masjid-i-Jami' at Qazvin (A.H. 500-9/A.D. 1106-15) has a prominent portal which formed the dominating feature of the Persian mosque of the future. The Saljuq craftsmen exhibited great technical skill in their use of groined vaulting as well as the construction of small domes, as seen at Isfahan, Ardistan and Natanz. But the introduction of the double dome as it appears in the Jabal-i-Sang (A.H. 582/A.D. 1186) at Kirman is probably the most significant achievement of this whole period.

The double dome reappears in the Mausoleum at Tus (A.H. 8th/A.D. Early 14th century) and the Gur-i-Mir, the Tomb of Amir Timur at Samarqand (A.H. 838/A.D. 1434) and later still in the Mausoleum of Humayun at Delhi (A.H.973/A.D. 1565) and the Taj Mahal (A.H. 1044/A.D. 1634) at Agra.[53]

Assessing these contributions, Schroeder is undoubtedly correct in his judgment, though somewhat obscure in his words : "It was the lucky greatness of the Saljuq period that it restored that talent to circulation and until it trespassed too far upon the talent for construction, as we see it doing already in the Mausoleum of Khwaja Atabek and the Gunbad-i-Kabud at Maragha, it gave to Persian architects a classical Age."[53]

In the middle of the 13th century, the Il-Khanids created a style of architecture which stood in the same relation to the Saljuq architecture as that of the Gothic to the Romanesque. Utilizing the Saljuq domed and vaulting systems, the Il-Khanid builders created a new manner of treatment of both construction and decoration.[98] A refined attenuation is apparent in both their construction and ornament. This delicate and refined taste is displayed in the precise harmonious compositional use of stucco and glazed tiles in their *mihrabs*, lofty portals, soaring minarets and sharply pointed domes, the four-centred pointed arch and the double-dome, being features of the style.

However, Il-Khanid architecture is displayed in two characteristic forms each with its own features, namely, the domed type raised on a square plan and the ivan type. The interesting rock-cut Masjid-i-Sang at Darab, dated A.H. 652/A.D. 1254 is square in plan, the colonnades within the square being cruciform.[103] The Masjid-i-Jami' of Marand, dated A.H. 730-40/A.D. 1330-39 has a square domed chamber with portals

on three sides.[53] This enclosed type of Mosque was, perhaps, adopted owing to the severe cold of Azarbayjan, just as the incessant rainfall in Bengal led to the erection of similar monuments in Gaud in Bengal.

The early fourteenth century Masjid-i-Jami' at Ardabil is also, a square domed building. According to Wilber, the decoration of this mosque recalls those at the Mausoleum of Oljeitu at Sultaniya (A.H. 705-13/A.D. 1305-13) and the Tomb tower at Abarquh (A.H. 448/A.D. 1056), but the patterns are more delicate and refined at Ardabil.[98] The coat of hard white plaster applied to the building bears a close relationship with the plaster finish of the Tughlaq buildings in Delhi and the plastered domes of the Bengali monuments of the 15th century, A.D. at Gaud. Howovor, this use of plaster is an old technique, going back to Sasanian times.

Other examples of the square domed type of Persian mosque are the Mosques at Dashti, the Masjid-i-Jami' of Kaj and the Mosque of Eziran near Isfahan. These three mosques, built in A H 726/A D 1325 have square domed chambers with flanking corridors, prominent portals and forecourts, and as the earliest dated examples of the double dome with pointed profile in Persian Islamic architecture.

One of the earliest monuments manifesting the typical high portals of this period with a domed prayer hall is the Masjid-i-Jami' at Natanz dated between A.H. 704-9/ A.D. 1304-9. Similar in plan is the Masjid-i-Jami' at Ushtarjan near Isfahan which was erected in the year A.H. 715/A.D. 1315-6. The most striking features of this elegantly designed Mosque are the pair of slender tapering cylindrical minarets flanking the northern portal, the tunnel-vaulted ivan leading to the prayer hall and its stucco and glazed tile decoration.[98]

The offset mouldings with slight projections, demonstrated by the Mosque of Farumad, reconstructed in A.H. 720/A.D. 1320, are reminiscent of the vertical offsets and recesses of the Chamkatti Masjid at Gaud. (Pl. XVII)

The Masjid-i-Jami' of Varamin, dated A.H. 722/A.D. 1322, anticipates the fully developed ivan mosques of the Timurid and Safavid periods. Its imposing portal gives the impression of an independent structure. The transition from the square substructure to the octagon and finally to the circle of the dome is attained by stalactite squinches, which carry a 16-sided intermediary polygonal drum. A similar technique, also, occurs in the Mausoleum of Tus, dated early 14th century A.D., and the Mausoleum of Oljeitu at Sultaniya. The delicately designed ornamental pierced lattice above the central *mihrab* in the Masjid-i-Jami' at Yazd dated A.H. 724-77/A.D. 1324-65 recalls the lunette in the *mihrab* wall of the central nave in the Adina Masjid at Hazrat Pandua. (Pl. II)

The Masjid-i-Jami' of Kirman, dated A.H. 750/A.D. 1349, resembles the Mosques of Abarquh and Natanz in maintaining the traditional Iranian Mosque plan of four ivans or porches in walls of the spacious courtyard with its dominating eastern portal. The Masjid-i-Jami' of 'Ali Shah at Tabriz (A.H. 710-720/A.D. 1310-20), on the contrary, illustrates a highly individual adaptation of the older established traditions. Un-

doubtedly inspired by the colossal scale of the Achaemenid and Persepolitan buildings, the main prayer hall carries on overhanging tunnel vault. This springs at a height of about 80 feet and was 100 feet in span. TheAdina Masjid at Hazrat Pandua is reminiscent of the Mosque of Tabriz in having a central vaulted hall and anexteri or projecting *mihrab* as well as a window opening above the central *mihrab*.[53] (Fig. 5 & Pl. II)

The beginning of the fifteenth century was marked by the Timurid Rennaissance. Timur, a great connoisseur of art and architecture, beautified his capital Samarqand with elegant monuments. As Byron puts it, "Domes and minarets protrude and multiply; portals, ivans and niche-facades attain extraordinary height; pattern and texts become exuberant in proportion to their intricacy (in the hands of the inept, this proportion is generally reversed), unbridled, fantastic; colour achieves a range, a depth, and a brilliance not equalled before or since." [53]

In the earliest phase of these building activities in Transoxiana, the Timurids achieved a peak of florid ostentation in their architecture. The Mosque of Bibi Khanum (A.H. 808/A.D. 1405-6) at Samarqand is the supreme example in their works. It demonstrates the integration of classical Persian architectural features in a highly individual, balanced and graceful style. This was, however, preceded by the Mosque of Hazrat Ahmad Yasavi, (A.H. 797/A.D. 1394-5), an enclosed building covered by a pointed dome with an entrance portal with a magnificent four-centred pointed arch. The fluted dome in the Mosque of Yasavi in Turkestan anticipates the convex fluted ribbed domes of the Gur-i-Mir, namely, the Mausoleum of Amir Timur in Samarqand and the Mausoleum of Gawhar Shad in Harat (A.H. 839/A.D. 1435), as well as those of the later Indian Mosques, particularly of Bijapur.

Besides the ivan type of Mosque, an example of the square domed mosque is found in the enclosure of the Madrasa of Bibi Khanum in Samarqand (A.H. 808/A.D. 1405-6).[53] The Mosque of Gawhar Shad at Mashhad provides new ideas of construction and decoration. The Blue Mosque of Tabriz (A.H. 870/A.D. 1465) combines the covered and courtyard types of mosque, imitated by the Mosque of Anau (A.H. 848-60/A.D. 1444-46).[53] The Tabriz Mosque is distinguished by its superb mosaic tile works and marks the zenith of the Timurid style of architecture. The Mosque of Gawhar Shad at Harat (A.H. 841/.DA. 1437-8) commonly known as Musalla has beautiful examples of the Central Asiatic form of slender and elegant minarets.

Byron says, "The most novel, and still the most triumphant invention of Timurid architecture was the tall bulbous dome on the tall cylindrical drum".[53] According to Creswell, the double-dome appears first in the Timurid mosque of Kaj, dated A.H. 738/A.D. 1337. This distinctive architectural feature also exists in the Mausoleum at Tus (A.H. 700(?)/A.D. 1300), in the Mausoleum of Amir Timur at Samarqand and also later in the Mausoleum of Humayun at Delhi and the Taj Mahal at Agra.[104]

The sixteenth century A.D. marked the beginning of what may be really described as an architectural and artistic renaissance under the Safavids. Pope says, "The solution of the dome and screen problem is one of the most interesting contributions

of Safavid architecture, solution happily anticipated on the Masjid-i-Jami' Varamin, thereafter apparently neglected, and then most perfectly achieved in the Masjid-i-Shah of Isfahan, just a hundred years later than the Sava mosque".[53] The Masjid-i-Shah of Isfahan (A.H. 996-1037/A.D. 1587-1628) includes many of the typical features of classical Persian architecture: the half-domed portal with stalactites, flanked by a pair of slender minarets, rising from the side arcades: the bulbous domes, with its interior interlaced ribbed vaulting and sumptuous mosaic and *haft rangi* or parti-coloured tiles.[53]

If the Masjid-i-Shah in Isfahan marks the climax of Mosque architecture in Islamic Persia, the Masjid-i-Shaykh Lutf Allah (A.H. 1012-28/A.D. 1603-18), which was not built earlier, may be considered an excellent example of the fully developed form of Persian mosque. The style endured and throughout the period high standard of workmanship was maintained. The same is to be seen in India, where the Madrasa and Masjid of Safdar Jang at Delhi was built as late as A.D. 1753.

Marshall says, "Seldom in the history of mankind has the spectacle been witnessed of two civilizations, so vast and so strongly developed, yet so radically dissimilar as the Muhammadan and the Hindu, meeting and mingling together".[105] As Holmes puts it, "The religion of Mahomet is realistic, positive and purely matter-of-fact concrete, whereas that of Brahmins is idealistic, abstract, visionary and metaphysical".[106]

The Muslim invaders were necessarily impressed by Indian architecture and sculpture, expressing as they do foreign religious emotions in terms of images and emblems. What they saw at Delhi, and the other cities of India, which they attacked, was absolutely foreign to them. Yet when they came to raise their own religious buildings, they were not averse to using the spoils of their temples.[107] Recent researches have put Havell's contention that Indo-Muslim architecture is a modified form of Hindu art out of court. It is simply not true that the early Muslim invaders of India were destitute of any architectural heritage of their own.[108] As Marshall puts it, "...they themselves were already possessed of a highly developed architecture of their own, as varied and magnificent as the contemporary architecture of Christian Europe...."[105]

The ruthless desecration and makeshift conversion of Indian temples into Mosques has led many scholars to regard Indo-Muslim architecture as nothing more than a local variety of hybrid nature. In point of fact, these early Indian mosques which were compiled from Brahamanical fragments, such as the Deval Masjid at Bodhan near Hyderabad, have no direct bearing on the general development of Mosque architecture in India.

On the other hand the use of the spoils of non-Muslim ruins was a widely recognised feature in early Muslim architecture. Curiously enough, the earliest surviving mosques in India at Bhanbhore and Mansura-Brahmanabad in Sind demonstrate little or no indigenous influence, nor are they built of the remains of Hindu temples. They are, in fact, brick buildings with all the requisites necessary for congregational prayer. Indeed, they recall in their simplicity the mosques at Madina, Kufa, Basra and Wasit.[109]

However, the evolution of Indo-Muslim architecture in the 12th and the 13th centuries may be described as a synthetic process: the impact of Islam on India was overwhelming, but this does not negative the influence of Indian architectural skill on the formation of a truly distinctive style of Islamic architecture in India. The Muslims brought with them their own architectural skill and tradition. They, however, found a completely different environment in India, to which their traditions of architecture had to be accommodated. Racial discrimination did not stand in the way of creating a new imperial school of architecture, for the rulers enlisted the services of indigenous artisans trained in the ancient Indian art of stone carving.[80] As Codrington says, "throughout the centuries since Kutbu'd-din employed Hindu masons to raise up his great Strength of Islam Mosque upon the ruins of the oldest of the Delhis, there has been a free exchange of services and goods from the centres of population of the one faith to the centres of the other".[110]

Just as at later date Mughal painting is a harmonious blend of Persian and Indian artistic traidition,[111] so the Indo-Muslim architecture of Delhi and Ajmer is a blend.[105] In the Quwwat al-Islam at Delhi and the Arhai din-ka-Jhopra at Ajmer, existing remains bear unmistakable evidence that they were not merely compilations, but the distinctive, planned works of professional architects. Havell says, "The characteristics of these so-called Pathan buildings are, as might be expected, a blend of Indian and Persian traditions adapted to the strict Sunni ritual as dictated by the Ulamas of the Delhi court. The severity of their style must be attributed to the puritanical sentiment of the Sunni interpreters of Islamic law, and not to the racial temperament of the Pathan for Turkish fighting men or of their leaders".[108]

Hindu ritual prayer is fundamentally different from Muslim religious practice. The former is based on individual worship: the latter prescribes communal or congregational prayer. Consequently, the Hindu temple is relatively narrow and congested: the Mosque is broad and spacious. The former is dark and cell-like with a close mysterious atmosphere: the latter was open to the sky, brightly lit and well-ventilated. The Temple is the theatre of Indian religion: the Mosque is the centre of Muslim social, political and religious life.[105] The contrasting needs of Hindu and Muslim religious worship are naturally embodied in their respective architectural achievements. Hindu architecture is trabeate: Muslim arcuate. In contradistinction to the pyramidal roof of medieval Indian temples, the Muslims imported with them the highly developed constructional features of arch, dome and vault, which had already created magnificent architectural works in Persia.[112]

The Indian medieval temple is, we know, a museum of lush, exuberant sculpture: Islam on the other hand was aniconic. Yet it freely made use of the ancient decorative traditions which included many representational forms. Basically the mosque, unlike the temple, is stern and simple, but it did not reject ornament. Muslim decorative art, as stated by Marshall, is "inclined to colour and line or flat surface carving, and took the form of conventional arabesques or ingenious geometric patterning".[105] It

is demonstrably true that Indo-Muslim architecture is deeply indebted to the prodigious wealth of ornamental art in India. Thus indigenous flowers and foliage are apparent in the decoration of the buildings, raised by the Muslims in India.[110] This new school of Muslim architecture in the Indian peninsula is far from being purely Islamic in origin nor is it in essence Indian. It is a hybrid, the product of the interaction of two cultures.

But Goetz points out, "The genesis of Indo-Muslim civilization, therefore, can hardly be explained as a simple intermingling of two different civilizations. It was rather a substitution of Indian elements of similar type for the original dominating ones of Turkish-Muslim origin, these first being selected from the stock of indigenous culture without regard to the Indian tradition, or, in other words, an Indian imitation or even falsification of Timurid models".[108] But this exaggerates the position, for Indian construction and decoration was evident from the first.

The Muslims brought with them the technique of rubble and concrete construction, which was the basis of Roman architecture and the first development of the dome, but which was previously unknown in the Indian peninsula. This enlarged the scale of building by making it possible to span large areas by voussoir arches, domes and tunnel vaults. Therefore, the most outstanding Muslim contribution to Indian architecture, as Marshall suggests, was the introduction of "breadth and spaciousness" as well as new form and colour in decoration.[113]

Goetz's reference to Timurid models is chronologically pointless. The characteristic elements of early Muslim architecture in India were derived from the work of the Samanid, Saljuq and Il-Khanid periods. Pope says, "It is to the architects of Persia that we owe the solution that was subsequently adopted in all the true domes built in India".[114] The arched squinch with concentric semi-circular masonry courses observed in the 'Ala'i Darwaza at Old Delhi (A.H. 705/A.D. 1305), in the Mosque at Badaon and in the tombs of Sarhind (A.H. 9th/A.D. 15th) recall those in the Masjid-i-Jami' of Isfahan, the Masjid-i-Jami' of Gulpaygan and the Masjid-i-Jami' of Ardistan. These arched squinches, used for raising domes are clearly descended from the Sasanian Palaces at Sarvistan, built in the middle of the fourth century.[115] Indeed the squinches at Palermo must be discussed in the same way.

It has been said that the outstanding feature of Persian Islamic architecture is the four-centred pointed arch, which was introduced from Persia in the Indo-Muslim buildings at Mandu (the Jami' Masjid, A.H. 844/A.D. 1440), Gulbarga (the Jami' Masjid, A.H. 771/A.D. 1369), Bidar (Madrasa of Mahmud Gawan, A.H. 877/A.D. 1472) and Old Delhi.[116] The cusped arches of the Khalji edifices were first developed in Central Asia at Mashhad-i-Misrian in the tenth century A.D. Arcades of cusped arches with large roundels filling the spandrels are apparent in the dome of the Safed Bulan in Turan (A.H. 6th /A.D. 12th), before they reappear in the Mausoleum of 'Ali Shahid Pir-k-Masjid at Bijapur (A.H. 10th/A.D. 16th century) in the Indian Deccan.[114] The transverse vaulting system of Persian origin, also, made its appearance in many Indo-Muslim buildings, for example, the Jami' Masjid at Gulbarga and the Adina Masjid at Hazrat

Pandua. The ribbed vault observable in many Il-Khanid mosques such as the Masjid-i-Jami' at Ardistan, also appears in the Jami' Masjid at Gulbarga (A.H. 7th century/ A.D. 15th century) as well as the Adina Masjid (Pl.II) at Hazrat Pandua and the Gunmant Masjid at Gaud.[117] The fluted, hemispherical stilted domes of many Indian mosques as well as the bulbous pointed dome of Mughal architecture are also all derived from central Asian and Persian prototypes.[114]

Among the many notable Persian features introduced into Indo-Muslim architecture are half-domed portals, slender tapering minarets and honey-combed or stalactite pendentives, as well as the elaborate floral ornamentation and the use of calligraphy as part of decorative scheme.[105] The use of coloured tilework is also new, as may be seen at Multan (the tomb of Rukn-i-Alam, A.H. 770-24/A.D. 1320-24),[118] Bidar (Madrasa of Mahmud Gawan, A.H. 876/A.D. 1472),[119] Thattha (the Jami' Masjid, A.H. 1054/.AD. 1644),[120] Gaud (the Lattan Masjid, A.H. 899-25/A.D. 1493-1519) (Pl. XIX),[55] Agra (Chini-ka-Rauza, A.H. 1068-1118/A.D. 1658-1707), Lahore Fort (A.H. 1055/A.D. 1645) and Delhi (the so-called Jamali Kamali, Tomb and Mosque of Fazl Allah "Jamali", A.H. 943/A.D. 1536).[121]

But besides the persistence of these older Islamic features in the evolution of Indo-Muslim architecture, the indigenous artistic Indian contribution cannot be neglected. The employment of Hindu masons and artists led to the introduction of ancient Indian architectural and decorative features, such as corbelled domes, bracketed pillars, the distinctive form of the doorways, and the use of finials of the *kalasa* type. There is, therefore, proof positive that indigenous artistic traditions played a considerable part in the evolution of Indo-Muslim architecture.[122]

Actually before Islamic power in India was firmly established in the 12th century, the Arab invaders had demonstrated their need for buildings in Sind in the 2nd century A.H./8th century A.D. Recent excavations at Banbhore undertaken by the Department of Archaeology in Pakistan have uncovered a burnt-brick mosque, dated A.H. 109/A.D. 727, as well as fortifications. They are not only the earliest known examples of Indo-Muslim architecture, but they correspond in their details with the Mosques of Kufa, Wasit, Baghdad and Raqqa,[109] that is to say, they have oblong piers carrying flat timber roofs and an open courtyard, enclosed by colonnaded arcades. Another Mosque excavated at Mansura-Brahmanabad in Sind is also probably of the 8th century A.D. This Mosque is also built of bricks, and had a flat timber roof.

The eleventh century A.D. was marked by the cataclysmic series of invasions of India by Sultan Mahmud of Ghazni, who apart from being a conqueror, was a great patron of art and culture. Ghaznavid architecture, particularly the existing minarets of Mahmud and Mas'ud at Ghazni, which have already been mentioned, and the wood carving of the famous gates of Ghazni, all reflect the 9th and 10th century Samanid style of north-eastern Persia.[80] Indeed, the Samanid buildings served, in many of their features, as typological ancestors of the Delhi buildings of the twelfth century A.D.,[123] notably of the Qutb Minar. Moreover, Sultan Mahmud is said to have built

not only a Mosque, known as "the Celestial Bride" in Ghazni, but also the Khishti Mosque and Minar in Lahore of which little remains.[124]

In point of fact, the buildings in Old Delhi embody the first manifestation and early development of Muslim architecture in India. As Marshall puts it, "Of the many and various groups into which the Islamic monuments of India are divided that of Delhi occupies the central and pre-eminent place".[105] Delhi was the source of artistic inspiration for all the later provincial schools of Indo-Muslim architecture. Codrington remarks, "At Delhi, the Kutb-ul-Islam marks the beginning of Islamic architecture in India".[125] This formative phase of Mosque architecture in India began with the random utilization of temple spoils, Hindu architraves, corbelled ceilings, kumbha pillars with hanging bell-and-chain motifs, which were organised to fulfil the needs of congregational prayer. It is said that the columns of twenty-seven Hindu and Jaina temples were utilized in the great Mosque, at Delhi, rightly called the "Might of Islam". It was built by Qutb-al-Din Aybak in A.H. 587/A.D. 1191-2 on an ancient pre-Muslim plinth.[126]

The quadrangular court of the Mosque is enclosed on the east, the north and the south by two colonnades. The western side, containing the *liwan*, is divided into five bays by four colonnades. The cloisters or *riwaqs* are entered by porched gateways, placed in the middle of the north, the south and the east sides. Originally there were five domes in the *liwan* all compiled of Hindu fragments, as is evident from their corbelled interiors. The most striking features of this Mosque are the four entresol galleries at the four corners of the courtyard, instead of only one at the northern end, as in the *liwans* of the Bengal and Malwa mosques. At the back of the *mihrab* wall there is a Hindu false window which anticipates similar but pierced window in the rear wall of the central *mihrab* at Hazrat Pandua.

The most interesting features of the Mosque are the screen and the detached Minar. Burton-Page says, "The screen arches are corbelled, ogee at the top, some 2·5 metres thick, the central arch 13·7 m. high with a span of 6·7m. The whole surface of this maksura is covered with carving, Hindu floral motifs and arabesques, and vertical lines of naskh".[126]

To the south of the Mosque, Qutb al-Din commenced the Minaret, known as the Qutb Minar. This tall tapering Minar consists of four storeys, each demarcated by stalactite balconies, and is some 225 feet in height. It is formed by alternate angular and rounded flutes. The lower storey served as the prototype of the turrets above the screens and the corner bastions of the Arhai Din-ka-Jhopra Mosque at Ajmer. Fergusson considers it to be one of the most beautiful examples of its kind known to exist anywhere.[80] J.A. Page compares it with the Ghazni Minars of Sultan Mahmud and Masud. He writes, "The ultimate origin of these towers is probably to be found in such Sasanian structures as the towers of Jur and Firozabad in Persia, the Chaldean ziggurat observatories, as at Khorsabad, and the Tower of Babel."[123]

The great dignity of the Quwwat-al-Islam mosque is largely due to its immense scale. To Qutb-al-Din's work was added to and improved by Iletmish (A.H. 607-633/A.D. 1211-36) and 'Alauddin Khalji (A.H. 695-715/A.D. 1296-1316). To Iletmish we owe some of the finest Muslim works in India. The Arhai din ka-Jhopra, began by Qutb al-Din in A.D. 1198-9, was also completed by him. Tod had said of it that it was "one of the most perfect as well as the most ancient monuments of Hindu architecture",[127] on the evidence of certain four-armed figures to be seen on the pillars. Cunningham rejects this view and treats the Arhai-din-ka Jhopra as an essential Muslim work.[128]

The Ajmer Mosque resembles the Delhi Mosque in its use of pre-Muslim materials as well as in its courtyard plan, arched screen, columnar *liwan* and *riwaqs* and use of reconstructed Hindu corbelled domes. All these features, except the fragments of Hindu and Jain carvings used in the work are essentially Islamic. The Ajmer Mosque indicates a further improvement in Mosque design. The height of the *liwan* roof is greatly increased and there is a semi-circular marble *mihrab*—a new feature. As Sardar puts it, "These pillars have a greater height than those at the Kutub, and are more elegant in their sculpture and general appearance than the converted Mosques in Malwa and Ahmedabad". [127]

Although constructed of destroyed Hindu temples, the Mosques at Old Delhi and Ajmer once and for all set the fashion to be followed by later mosques in Muslim India. As Cunningham says, "In boldness of design, and grandeur of conception, which are perhaps due to the genius of the Islamite architect, these two splendid mosques of the first Indian Muhammadans are only surpassed by the soaring sublimity of the Christian cathedrals. But in gorgeous prodigality of ornament, in beautiful richness of tracery, and endless variety of detail, in delicate sharpness of finish and laborious accuracy of workmanship, all of which are due to the Hindu masons, I think that these two grand Indian Mosques may justly vie with the noblest buildings which the world has yet produced. In attributing the design to the Musulman architect, and all the constructive details of the Hindu, I am chiefly influenced by the fact that the arch has never formed part of Hindu structural architecture, although it is found in many specimens of their rock-hewn temples. The design, therefore, I take to be Muhammadan, but as the arches of the Ajmer Mosque are formed by overlapping stones, I conclude that the actual construction was the work of Hindu masons, who were ignorant of the art of forming an arch by radiating voussoirs".[128] Marshall regards the arched screen of the Ajmer Mosque rather as a *tour de force* of technical excellence, than an artistic triumph.

Iletmish built a small Mosque at the tomb of his son Nasir al-Din Mahmud "Sultan Ghari' (A.H 629/A.D. 1231) at Delhi, a square *'Idgah* (A.H. 599-606/A.D. 1202-09) and a Jami' Masjid at Badaun (A.H. 620/A.D. 1223). Cunningham says of the 'Idgah, "a massive brick wall, 302 feet in length, with lines of ornament near the top, which most probably were originally covered with blue glaze".[129]

The Jami' Masjid of Badaun, also built by Iletmish is one of the largest mosques in India. Following the traditional courtyard plan, it also utilizes Hindu temple pillars. The entrance arches of the gateways leading into the courtyard of the Mosque presumably recall those in the great Mosques at Delhi and Ajmer. The walls are encrusted with blue glazed tiles. Cunningham says, "Although the Jami' Masjid of Badaun cannot be compared with the magnificent Masjids of Delhi and Ajmer, yet its great size and the massiveness of its walls give a certain dignity to its ruined aisles which a smaller buiding would not possess".[55]

That the practice of utilizing the spoils of Hindu temples continued throughout the reign of Sultan Iletmish is proved by the Mosque of Ukha in Bayana (Uttar Pradesh), which is also on the site of a Hindu temple.[130] A departure from this practice of the early Indo-Muslim architects is found in the *Jama'at Khana* Masjid at the Dargah of Nizam al-Din in Old Delhi, which was built by 'Ala' al-Din Khalji. Burton-Page regards this as "the first example in India of a Mosque built with specially quarried materials, not improvised from Hindu material".[126] It marks a new stage in the development of Indo-Muslim architecture. As at the 'Ala'i Darwaza and the tomb of Iletmish at Delhi, the Dargah demonstrates domes on squinches, arches with spear-head fringes, horseshoe arches and flat *mihrabs*.

Unlike the florid and ornate Khalji architecture, the Tughlaq buildings are robust and stern. As Marshall puts it, "The days of its first youthful splendour and prodigal luxuriance were over. Lavish display of ornament and richness of detail now began to give place to a chaste sobriety which, as time went on, developed into a severe and puritanical simplicity. At first the change was due to the urgent need for economy and to the general revulsion of feeling against the excesses of the Khalji regime."[105] This change may also be caused by the migration of the skilled Delhi artisans to Daulatabad in the Deccan in the time of Sultan Muhammad b. Tughlaq (A.H. 725/A.D. 1325-51). Yet in the words on Marshall "the brain which conceived the whole was working in obedience to Indian precept".[105] This is demonstrated by Hindu features such as the multi-domed roofing and tapered minaret-like buttresses. All these features appear in the Adina Masjid at Hazrat Pandua.[147]

Burton-Page says, "The Mosque style of the period is better shown by half a dozen mosques of approximately the decade 766-76/1364-75 : all are rubble-and-plaster, presumably originally white-washed, with pillars and Hindu style brackets and eaves in local grey granite, with prominent gateways, many-domed roofs, and tapering ornamental pillars flanking the gateways. The simplest is the Mosque in the *dargah* of Shah 'Alam at Wazirabad (Timurpur) (A.H. 777/A.D. 1375), a simple west *liwan* of five bays, with three domes, within which is the earliest example in Dihli of a *zanana* gallery in the rear corner of the *liwan*; the large (courtyard 68·0 by 75·3 metres); Begampur mosque in the north of Djahanpanah (A.H. 772/A.D. 1370) has the *sahn* surrounded on all sides by a domed arcade, and the west *liwan* has a tall arched pylon in the centre of its facade which completely masks the large central dome; the

Sandjar mosque (also called Kali [black] Masdjid) at Nizamuddin (A.H. 772/A.D. 1376) has the central courtyard divided into four smaller courts each 13·1 by 10·1 metres by a cruciform arcade one bay in depth, as well as the domed arcading on all sides; the Khirki Mosque at Khirki village in the south of Djahanpanah close to the Sat Pulah, has a similar arrangement, but the crossing arcades are of three ranks of arches, as are the side *liwans* : hence only the four courts, each 9·8 metres square, are open in the total area of about 52m. square; the Kalan (this also sometimes miscalled Kali) Masdjid (A.H. 777/A.D. 1375), within the walls of the later Shahdjahanabad, is smaller with a single open court and surrounding domed arcades. This, the Khirki Mosque, and the Djami Masdjid in the Kotla are all built on a high plinth over a *tahkhana* storey, and the mosques themselves are approached by high flights of steps. The Kalan Masdjid was no doubt the main mosque of the new Firuzabad suburbs, but the size of the Begampur and Khirki mosques implies that the older cities still maintained a considerable population".[126]

The further development of Muslim architecture in the Indian provinces was stimulated by the formation of independent Sultanates, such as those in Bengal (A.H. 738-945/ A.D. 1338-1538), Gujarat (A.H. 803-980/A.D. 1400-1572), Jaunpur (A.H. 762-885/ A.D. 1360-1480), Gulbarga (A.H. 748-826/A.D. 1347-1422), Bidar (A.H. 826-918/A.D. 1422-1512), and Malwa (A.H. 808-977/A.D. 1405-1569).[80]

Cunningham writes, "For nearly a century (A.H. 762-885/A.D. 1360-1480) the city of Jaunpur was the capital of an independent Muhammadan kingdom, perhaps the richest in Northern India".[131] Hugel suggests the Hindu origin of Jaunpur architecture. According to him, the Jaunpur buildings were nothing more than adaptations of contemporary Hindu styles, fulfilling the needs for a Muslim place of prayer. The free use of the Hindu trabeate form of construction speaks for itself. Indeed, short square pillars with bracket capitals, horizontal architraves, flat roofs formed of flat stone slabs, etc., were all taken over from Hindu temple architecture. These Muslim buildings also share certain outstanding features of Hindu workmanship, for instance, the sculptured fragments with masons' marks.[131] As Fergusson says, "The truth of the matter appears to be, that the greater part of the Muhammadans in the province at the time the Mosques were built were Hindus converted to that religion, and who still clung to their native forms when these did not clash with their new faith".[80]

It is, therefore, clear that indigenous art did play a certain role in the development of Jaunpur architecture. Yet, the Jaunpur monuments reflect the spirit of Tughlaq architecture, especially in the domes over the prayer chamber, its engaged and sharply tapered minarets, its parapets, cornices and string-courses. But the school of Jaunpur architecture, also introduced several strikingly new features, such as, the prominent central *liwan* arch (the so-called Propylon), the depressed four-centred points or "Tudor arch" with its fringe of spear-heads.[131]

The prominent *liwan* arch is the dominant feature of Jaunpur architecture. Codrington points out that the development of the prominent central arch may be traced in

later times at Delhi and especially at Jaunpur.[132] It has, of course, Persian origins and is found in the Jami' Masjid at Cambay (A.H. 725/A.D. 1324-25) and the Begumpur Masjid in Delhi (A.H. 771/A.D. 1370). It appears, also, in the imposing central archways of the Arhai Kanjura Masjid at Benaras (A.H. 796-881/A.D. 1394-1477) and the Jami' Masjids at Itawa (A.H. 796-88/A.D. 1394-1477) and Kanauj (A.H. 809/ A.D. 1406).[84] As Terry writes, "Whatever their origins, these Jaunpur portals are clearly forerunners of the great Mughal gateways of which the Buland Darwaza at Fathpur Sikri is the most successful".[133] At the same time as Marshall says, "...the mosques of the Tughluqs are less ornate than the Atala Masjid or its successors at Jaunpur, nor is there anything in them to match the imposing propylon screens which adorn the latter." [105]

The earliest of the Jaunpur mosques is the Masjid built by Shaikh Barha in the suburb of Zafarabad in A.H. 711/A.D. 1311. Although insignificant in scale, it reflects future developments, such as, the frontal portion, ten feet thick, which is the prototype of the characteristic Jaunpur prominent *liwan* arch. The Mosque of Ibrahim Naib Barbak in the Fort is dated A.H. 778/A.D. 1377. According to Cunningham, "it is a long narrow building of the early Bengali type, that is, a simple arcade supported on carved Hindu pillars, with three low domes in the middle".[131] It has a detached minar in the courtyard which corresponds with that of the Adina Masjid to the west of the *qibla* wall.

Fergusson considers the Atala mosque, built on the site of a Hindu Temple dedicated to Atala Devi (hence the appellation) in the years A.H. 778-811/A.D. 1376-1408, as "the most ornate and the most beautiful" at Jaunpur.[80] As stated by Burton-Page, "the central bay of the west *liwan*, covered by a large dome which is concealed from the courtyard by a tall pyramidal gateway resembling the Egyptian propylon, is the special characteristic of the Djawnpur style under the Sharki Sultans. The Atala Mosque is the largest (78·7m square) and most ornate, the *liwans* on the north, east and south are composed of five pillared aisles in two storeys, the two outer aisles at ground level being formed into a range of pillared cells facing the street; in the middle of each side is an archway, with a smaller propylon on the outside, and with domes over the north and south gates; a dome covers the central bay of each *liwan* on the north and the south of the main dome, each with its propylon facing the courtyard. Within each propylon is a large arched recess, with a fringe of stylized spear-heads similar to those of the *Khaldji* buildings at Delhi, in which are pierced arched openings in front of the dome, and the main entrances beneath ......The dome is supported on a sixteen-sided arched triforium, on corner brackets over an octagon with pierced windows, supported on squinch arches. The *kibla* wall is relieved on its exterior by square projections behind each dome, the corners of each supported by a tapering buttress; larger tapering buttresses support the main angles of the wall. There are no *minars*, the top storeys of the propylon serving for the *Mu'adhdhin*".[134]

Fuhrer regards the plan of the 'Atala Masjid as original, quickly perfected and hardly imitated elsewhere.[131] But, like the Atala Masjid, the *zenana* gallery at the Adina

Masjid at Hazrat Pandua, has two raised apartments at the corners of the *liwans*, separated from the rest of the building and entered from the outside. The A ala Masjid also, has a perforated screen like that of the Adina Masjid at Hazrat Pandua and many other mosques in Ahmadabad. Indeed, it is obvious that the origin of many of the features of later Mosques can be traced to Jaunpur.[135]

The Khalis-Mukhlis Mosque at Jaunpur, which is dated A.H. 820/1417, recalls the Atala Devi Mosque in its central *liwan* arch and its general trabeate form of structure. But, it is far surpassed by the *Jhanjhri* (or perforated) Mosque which is striking for its richness and beauty of ornamentation. Burton-Page considers the screen of the existing central *liwan* arch as "the finest stone tracery in Djawnpur".[134]

The smallest of the Jaunpur Mosques is the Lal Darwaza, so called because it was painted with vermilion. It was built by Mahmud Shah Sharqi (A.H. 840-62/A.D. 1436-58) in A.H. 849/A.D. 1445. Although on a smaller scale it is, as Fuhrer considers it, an edition of the Atala, for it is not entirely free from Hindu features. On the other hand it, also, marks a striking step towards architectural refinement and elegance.

Curiously enough, unlike the common *mihrab* with semi-circular niches in the Bengali mosques, the Jaunpur Masjids had richly carved oblong *mihrabs*, encased by broad elegant rectilinear frames. The flat background of the *mihrab* is very often filled with rectangular panels decorated with hanging chain-and-bell, a common motif in Gujarat.[131] Like the Atala Devi Masjid, the Lal Darwaza Mosque is also provided with a *zenana* gallery which is also a very common feature in the Gujarat Mosques. Of all the Jaunpur Mosques, the Jami' Masjid is the largest as well as the most splendid. Started in A.H. 842/A.D. 1438 and completed by Husain Shah Sharqi, A.H. 862-81/A.D. 1458-77, this congregational Friday Mosque displays great originality in general plan and arrangement. Cunningham says, "The plan of the Jami' Masjid is essentially the same as that of the Atala Mosque".[131] But unlike all the other Mosques of Jaunpur, the Jami' Masjid stands on a raised terrace; recalling the high plinth on which the buildings of Firuz Shah Tughlaq at Delhi are raised.[80] Once again the most prominent feature in the Mosque is the single *liwan* arch, which from the courtyard almost masks the lofty dome covering the central square prayer-hall. On the two sides of this hall are placed low pillared *zenana* galleries overlooking the central *liwan*. Beyond the *zenana* galleries are two rectangular chambers, roofed with barrel vaults.

Cunningham and Marshall seem to think that these later Jaunpur mosques are merely copies of the Atala Devi Masjid, dull and unimaginative.[105] In point of fact, each of the Jaunpur Mosques demonstrates new principles of planning and decoration. Marshall thinks that the unbalanced juxtaposition of the flat abruptly square propylons and the domes is one of the glaring defects of the Jaunpur school of architecture. On the contrary Fergusson points out, "......these Jaunpur examples possess a simplicity and grandeur not often met within this style. An appearance of strength, moreover,

is imparted to them by their sloping walls, which is foreign to our general conception of Saracenic art, though at Tughlaqabad and elsewhere it is carried even further than at Jaunpur. Among the Afghans of India the expression of strength is as characteristic of the style as massiveness is of that of the Normans in England. In India it is found conjoined with a degree of refinement seldom met with elsewhere, and totally free from the coarseness which in other countries usually besets vigour and boldness of design."[80]

As in Jaunpur and Bengal, the provincial seat of Government in Malwa was an ancient city, once the capital of the Paramara dynasty. Independent Muslim rule began in Malwa with the reign of Dilawar Khan, who is said by some authorities to have assumed the title Shah in A.H. 804/A.D. 1401, about the same time as the Sharqis of Jaunpur.[136] Among the great builders of Malwa, Hushang Shah and Mahmud Shah stand unrivalled for their architectural works.

The early formative phase of Indo-Muslim architecture, marked by the adaptation of Hindu, Buddhist or Jaina temples, is illustrated by the oldest Mosques at Delhi, Bengal, Jaunpur, Daulatabad, Patan, etc. In Malwa, also, spoils of Hindu temples were used. Yet, as Marshall puts it, "Considering how effectually local tradition dominated the Indo-Islamic architecture of Gujarat, it is surprising how relatively little it affected the architecture of Mandu which is not 200 miles distant".[105] Malwa looks northward; the source of architecture is, therefore, the imperial school of Delhi. The barbarous invasions of Timur drove many Delhi masons and builders to the south of India and they brought with them the basic structural principles of Tughlaq architecture. Among these are included battered walls, narrow lofty arch-ways and the pointed arch with spear-head fringe.[137]

It is, therefore, clear that the monuments of Dhar and Mandu are not merely plagiarized versions of the indigeneous local architecture. They are acknowledged to be distinctive and original, especially in the use of glazed tiles and of semi-precious stones, a new departure upon which the Mughal architects were to seize upon and develop. Marshall says, these monuments "were truly living and full of purpose, as instinct with creative genius as the models themselves from which they took their inspiration."[105] Their strength rests in their balanced proportions and subtle ornamental refinements. The subtle colour scheme was achieved by the profuse employment of multi-coloured stones and marbles, as well as of encaustic tiles. Besides using semi-precious stones, agates, jaspers, cornelians, etc., the 15th century Malwa monuments were clothed in glazed tiles, recalling the similar treatments of the Lattan Masjid and the Tantipara Masjid at Gaud. The work is intrinsically Persian in inspiration. Turquoise blue predominates.[84]

The oldest of the Mosques in Malwa is the Kamal Maula Masjid which was built in Dhar in A.H. 803/A.D. 1400. Both this Mosque and the slightly later Jami' or Lat Masjid are clearly adaptations of ruined Hindu temple material. As Burton-Page says, "...The outer portico of the Jami' Masjid shows an attempt to integrate the

trabeate facade by the interposing of pointed arches, of no structural significance, between the columns, the forerunner of the arrangement in the Mosque of Malik Mughith at Mandu."[138]

The transfer of the capital from Dhar to Mandu by Dilwar Khan in A.H. 794/A.D. 1392, marks a new phase in the development of Mosque architecture in Malwa.[139] The Mosque built by him in c. A.H. 808/A.D. 1405-6 is oblong in ground plan, the western side being formed by the *liwan*. Its roof is supported by Hindu pillars. The concave *mihrab* is lined with a black igneous stone which takes a beautiful polish and recalls the similar treatment of the niches in *zenana* gallery as well as the central *mihrab* of the Adina Masjid at Hazrat Pandua.[136]

The Mosque of Malik Mughis, dated A.H. 836/A.D. 1432-33, marks a sharp departure from the earlier examples by the introduction of arches in place of the earlier trabeate form. Built out of freshly quarried materials, it stands on a high plinth. Arched squinches are used to raise domes of "boat-keel" design, as Brown calls it.[84] The outstanding feature, however, is the principal *mihrab* which is brilliantly decorated with blue tiles and exquisite floral designs of decidedly Persian origin.[136]

The largest and most elegantly built Mosque in Malwa is the Jami' Masjid which was completed by Mahmud Shah in A.H. 844/A.D. 1440 at Mandu. Marshall says that all the ornamental adjuncts that it possesses are intrinsically good in themselves and worthy of the places they occupy; but they are wholly subordinate to the structural unity of the fabric, and might, indeed be stripped away without greatly impairing its majesty. Like many of its predecessors at Delhi, the Masjid is raised on a lofty plinth, fronted at ground level with ranges of arcaded chambers. From east to west it measures 288 feet, from north to south—some 20 feet less, but projecting from the middle of the eastern side is an imposing entrance porch with ascending steps which adds another 100 feet and more in this direction, while outside the northern wall are two other entrance porches of smaller dimensions. The interior court, a square of 162 feet, is bounded on all four sides by eleven arched bays, each identical in form with its neighbour and each surmounted by an identical small dome. But there is this difference between the four sides; that while the eastern *riwaqs* have only two aisles, the northern and southern have three, and the prayer chamber on the west five. The prayer chamber, moreover, is further distinguished from the other sides by the presence of three large domes, one in the centre covering the principal *mihrab* and *minbar* and one over each of the royal galleries which occupy the rear corners.

Marshall writes, "Compared with Ahmad Shah's Great Mosque at Ahmadabad, with which it was contemporary, the Jami' Masjid of Mandu is lacking in poetry and creative inspiration. It is too cold and formal and calculated to take rank among the really great architectural creations of India. On the other hand it is far from being open to the charge of dull monotony in the sense in which the Adina Masjid at Pandua is open to that charge. Even within its courtyard, the heroical simplicity of its arcades, its spaciousness and perspicuity of detail produce an effect not of barren vacuity like

the Adina Masjid but of impressive solemnity; and if we contemplate the exterior with its arcaded facade, and harmoniously proportioned porticos aglow with weathering tints of pink and orange, it is impossible not to feel the eloquence of its forceful, silent appeal."[105]

In many respects, particularly in the five-aisle domed *liwan*, the canopied pulpit, the *zenana* gallery, the arcaded *riwaqs* and the interior courtyard, the Jami' Masjid of Mandu corresponds with the Adina Masjid at Hazrat Pandua. The Mandu mosque is not as cold and formal as Marshall suggests nor does the Adina Masjid display "barren vacuity" or "dull monotony". Fergusson considers the Jami' Masjid of Mandu as ranking high among the monuments of its class. As against Marshall's opinion it should be remembered that the Adina Masjid was built almost a century before the Mandu mosque, was original in plan and creative in its architectural idiom, antedating later works in many ways.

Yazdani expressed the opinion that the plan of the Jami' Masjid was based upon the Mosque of Damascus. However, he says elsewhere, "The Mandu mosque, like the Adina mosque of Bengal is reported to have been copied from the Great Mosque at Damascus which is not correct, for the plans of the two Mosques differ..."[140] He also compares the Mandu mosque with the Qairawan Masjid with which, however, it has little resemblance. To sum up, it may be said that Malwa Mosque architecture is distinguished by boldness of design and characteristic decorative devices, derived from Tughlaq architecture. Unmistakable Persian influences are also to be observed in the polychrome designs, transverse ribbed arches and the use of rectangular *mihrab* niches.[137]

Codrington says, "In the study of Indian architecture, the geographical distribution is as important as the historical conspectus, for, being largely the product of guild-work, the monuments fall naturally into the well-defined provinces of Indian social development. Above all, from the great pre-Islamic Mediaeval shrines to the domestic architecture of the recent centuries, Gujarat has been noteworthy for its manipulation of the purely decorative."[132] Of all the provincial schools of Indo-Muslim architecture the superb Gujarat works are most clearly rooted in the old indigenous style of the region.

It is true that Mosque architecture in Gujarat only began in the 14th century. When 'Ala-al-Din Khalji conquered and annexed the country to the Delhi Sultanate in the later part of the 13th century, there still flourished a singularly beautiful indigenous style of architecture. The early monuments of Gujarat, notably at Patan (Anhilvada) tell the same story of the demolition of local temples and the reconstruction of their fragments.[141] They also echo the main features of the imperial architecture of Delhi. It is quite plain that Delhi masons, driven from the north into the distant provinces of India by the devastating Mongol inroads took an active part in the construction of various building projects.[80] As Marshall puts it, "It meant that the sense for symmetry and proportion and the almost faultless taste which had characterised

Khalji architecture became, from the outset, the key-notes of the Gujarat style also".[105]

The earliest recorded building in Gujarat is the Adina Masjid at Patan (Anhilvada), as stated above. This bears the same unusual name as that of the Mosque built by Sikandar Shah at Hazrat Pandua about fifty years later.[84] The tomb of Sheikh Farid and the Adina Masjid at Patan, which are dated c. A.H. 700/A.D. 1300, correspond in their utilization of Hindu building material with the tomb and the Mosque of Zafar Khan Ghazi at Tribeni in Hooghly, Bengal, which are dated c. A.H. 705/A.D.1305. The now demolished Adina Masjid at Patan, is said to have had one thousand and fifty pillars of marble and other stones taken from destroyed temples. Erected by Ulugh Khan, 'Ala'-al-Din Khalji's Governor, it measures 400 feet by 300 feet. Unlike the Patan Mosque, the Jami' Masjid of Bharoch, which is also dated c. A. H. 700/A.D. 1300 is a new creation. Although it does incorporate Hindu pillars, it is built on the usual Mosque plan with which we are familiar in earlier works. The brackets of the incorporated pillars and the carved interior of the corbelled domes are particularly fine. They, of course, necessarily recall the much earlier work of the Quwwat al-Islam at Delhi. It is important to realize that these primitive methods were still being used in the Indian provinces two hundred years after they were fully developed at Delhi. The use of *Jali* or pierced windows is an interesting feature, recalling similar motifs in the 'Ala'i Darwaza at Delhi. Here, however, the feature acquires added importance.[142]

The next important building at Cambay of the year A.H. 726/A.D. 1325, marks a further step in the development of Mosque architecture in Gujarat by replacing, in Brown's words, "the open pillared variety" of mosque design with the arched screen type. The Mosque of Cambay demonstrates the imposition of Khalji features, such as the arched screen of the *Jama'at Khana Masjid* at the *Dargah* of Nizam-al-Din Aulia in Delhi, upon the local trabeate forms of Gujarat Hindu architecture.[84] Codrington writes, "The Jami' Masjid at Cambay was finished in 1325, and is typical of these earlier buildings. It has all the appurtenances that Islam demands—cloisters, open courtyard, the covered place for prayer, *mimbar* and *mihrab* but only the west end is in any sense Islamic. As at Delhi and Ajmir, the pillars of the cloisters, and notably the entrance porches as a whole. are the relics of sacked Hindu shrines. The synthetic process, however, was manifestly distinct. In the beginning, at the Qutb, the Hindu element was confined architecturally to the trabeate constructive methods, and to part of the decoration, Islam contributing the plan and the embellishment of the Arabic lettering. In Gujarat, notably in the entrance porches of the Jami' Masjid at Cambay, much may fairly be described as literal reconstruction of Hindu work, as units in the established plan of a Muslim place of worship. These entrances have their parallels in the pavilions and *mandapas* of Hindu and Jaina temples still standing, for instance, at Modhera and Mount Abu. On the other hand, the West end, the mosque proper, shows a new development not to be found at Delhi—the prominent central arch which has Persian origins".[132]

Although these Gujarati entrance porches resemble earlier Hindu and Jaina workmanship it is clear that impressive porches of this kind are not at all rare in Delhi. They are to be found as well at the Jami' Masjid at Mandu. The *zenana* gallery appears for the first time in Gujarat in the Masjid of Cambay. It was, however, repeated in Hilal Khan Qazi's Mosque (A.H. 734/A.D. 1333) and the Tanka Masjid (A.H. 763/A.D. 1361) at Dholka as well as in Sayyid 'Alam's Mosque and the Jami' Masjid at Ahmadabad. In plan, the Mosque of Hilal Khan and the Tanka Masjid recall the Mosque of Cambay, the former being distinguished by minarets on either side of the central *liwan* arch. Henceforth, minarets became an integral part of Gujarat Mosques.[142]

Ahmadabad, the newly founded capital of the Ahmad Shahis, was beautified with many splendid mosques. The Mosque in the Fort, dated A.H. 817/A.D. 1414 is closely similar to the Mosque of Cambay, that is to say, it is laid out on the or—thodox plan, and has perforated windows, central *liwan* arch and *zenana* gallery.[143]

Smaller in dimension than the Mosque in the Fort, the Mosque of Haibat Khan at Ahmadabad, dated A.H. 815/A.D.1412, has tapered turrets on either side of the *liwan* arch, which recall those of the Kalan Mosque at Delhi.[143] The Jami' Mosque at Ahmadabad, is, as Marshall says, "...one of the most imposing structures of its class in the world." He continues, "the prayer chamber is 210 feet in width by 95 feet in depth, but its facade is so admirably composed, so broken up and diversified, and so well-proportioned in its parts, that its vastness only serves to enhance the beauty and impressiveness of the whole The low flanking wings on either side with their pseudo-arched fronts are unusual adjuncts, but the other features of the facade, its shapely expansive arches, its engaged minars blended more harmoniously than in the foregoing example (the Tin Darwaza) with the rest of the design, its carved mouldings and string-courses and battlements—all these are familiar characteristics of the Gujarati style."[105]

Fergusson compares the Jami' Masjid at Ahmadabad with the Jaina temple at Sadri (before A.D. 1450), a view which is, however, doubtful. There are points of similarity, but in point of fact, the Jaina temple seems to imitate the Jami' Masjid at Ahmadabad in its pillared upper compartment.[80] In any case, the Jaina temple is later than the Jami' Masjid. As in the Mosque of Hilal Khan at Dholka, the most striking features of this mosque are the minarets on each side of the central *liwan* archway. They are known as the "shaking minarets", (*Jhulta*) because they sway in the wind. It is interesting to note that the same name *Jhulta* or shaking minar is given to the minarets of the Ivan at Garladan near Isfahan, dated A.H. 715/AD.1315.[143]

Marshall considers the mode of lighting and ventilating the interior of this Mosque as an invention of the Gujarat architects, and thinks that it "is a specially happy solution of a well-known problem but one, strangely enough, that has never found favour in other parts of India."[105] These clerestory galleries along with sumptuous arabesque decoration, Hindu corbelled domes, perforated screens, elegantly ornamented and

buttressed minars are certainly the outstanding features of the Jami' Masjid at Ahmadabad. Understandably they were repeated in the later Mosques of Gujarat, built in the later half of the 15th and 16th centuries.

The *Dargah* Masjid of Shaikh Khattari at Sarkhej, dated A.H. 747-52/A.D. 1446-51, marks in the words of Burgess, "the perfection of elegant simplicity and may fairly be considered an improvement on the plan of the Jami' Masjid."[143]

In contrast with the stone masonry architecture of Gujarat, the Mosque of Alif Khan (A.H. 857/A.D. 1453) at Dholka is entirely built of bricks. Here brick piers replace stone columns and arches predominate over trabeate roof.[142] Brown says that it is evident that the earliest builders of Gujarat were Persians who settled down at Dholka before they moved to Ahmadabad. He further states that the brick builders of Dholka were deeply inspired by the brick building traditions of Persia.[144] It is certainly easy to find confrontations with the building style developed in Gulbarga, pa·ticularly in the Jami' Masjid.

Marshall writes, "With the accession of Mahmud Begara (A.H. 864-917/A.D. 1459-1511) the architecture of Gujarat entered upon its most mangnificent stage."[105] The early Mosques of Malik 'Alam at Dam Limdi (c. A.H. 856/A.D. 1460), the Masjid of Dastur Khan (c. A.H. 868/A.D. 1460), the Mosque of Miyan Khan Chishti (A.H. 870/A.D. 1465), Mosque of Bibi Achut Kuki (A.H. 877/A.D. 1472) are all based on the same plan.[143] But they show many developments in the face of the *liwan* arch and the general plan. The outstanding building erected by Mahmud Begara is undoubtedly the Mosque of Champaner. Burton-Page writes, "The Djami' Masjid, c.929/A.D. 1523, is inspired in plan by that of Ahmadabad, 100 years older; but here there is a double clerestory in the *liwan* in the space of one dome only, the arcuate maksura screen and the trabeate hypostyle *liwan* are well integrated : the side wings of the *liwan* are proportioned as a double square (8·5 by 17·0 metres); a *zenana* enclosure is formed by screening off the northernmost *mihrab*; and the external surfaces, as in all the Campaner buildings, are the subject of rich plastic decoration—particularly the buttresses supporting each of the 7 sumptuous *mihrabs*."[145]

The small elegant Mosque at Champaner, known as the Nagina Masjid (c. A.H.932/ A.D. 1525), has exquisitely carved marble tracery in the blind niches of the Minars.[145] This work is only excelled by that of the Sidi Sayyid Mosque in Ahmadabad (A.H. 916/A.D. 1510), the delicately pierced windows of which probably served as prototype for later Mughal work, such as the screens of the tomb of Salim Chishti at Fathpur Sikri.[146]

According to Marshall, the Gujarat architects were unable to handle the building of minarets successfully. He writes, 'Even at the Jami Masjid of Ahmad Shah the Minarets, when they existed, were in doubtful taste, and half a century later these features had become still heavier and more cumbersome in relation to the rest of the structure. This is a blemish that we have already noticed at Mahmud Begarha's great Masjid at Champanir, but it is just as conspicuous in contemporary mosques at Ahma-

dabad, such as those of Miyan Khan Chishti (1465), Bibi Achut Kuki (1472) or Bai Harir (1500)."[105] Marshall thinks that the minarets are disproportionate to the central *liwan* arch and impair the symmetry of the facade. From this point of view, it is important to note that Muhafiz Khan's mosque appears to have solved the problem by reducing the scale of the minarets and integrating them with the height of the prayer-hall. In the Mosque Rani Sipari (A.H. 920/A.D. 1514) at Ahmadabad, the minarets are merely "ornamental and symbolic appendage(s)", as Marshall calls them.[105] Fergusson regards the Rani Sipari Mosque as "the most exquisite gem at Ahmadabad, both in plan and detail." Its distinguishing features are its jewel-like carvings, which may be accepted as typically Gujarati.[80]

The Mosque built by Sidi Sayyid (A.H. 916-921/A.D. 1510-15) is one of the latest but most important of the buildings at Ahmadabad. Marshall describes it; "In form this mosque is unusually plain and chaste : merely an inarched chamber, five bays wide and three bays deep, its arches supported on squared pillars, or pilasters; plain octagonal minarets (now level with the roof) at the two fore corners; and the interior lighted by demilune windows of pierced stone work."[105] This building has been made famous by these delicate pierced window-panels in which the palm and foliage motif is conspicuous. As Brown says, "This particular motif...also appears in a mosque in Bengal, suggesting some transference of thought across the sub-continent, from one mind intimately attuned to another".[84] Acutally this motif appears in the tympanum over the second mihrab niche in the zenana gallery of the Adina Masjid at Hazrat Pandua as well as over the central *mihrab* of the Darasbari Masjid at Gaud.[147] (Pl. XXXVI)

Like all other provinces of India, the Deccan, also, witnessed the growth of a distinguished school of Muslim architecture. Its early phase is also, characterized by the adaptation of local temples, for the purpose of Muslim congregational prayer, as exemplified by the Deval Mosque of Bodhan in Nizamabad, near Hyderabad, dated A.D. 1318, which was formerly a Hindu shrine.[84] Marshall says, "Nowhere else in India did the assimilation of indigenous art proceed so slowly as in the south. From 1347, when their independence was established, down to the close of the fourteenth century, the Bahmanis based their architecture almost exclusively on that of the Imperial capital, and during the following century also they drew much of their inspiration from the same fountain-head. From the beginning of the fifteenth century, however, other and remote influences began to make themselves felt. At all times the Bahmani dynasts were generous patrons of art and science and learning and their court was as attractive to poets, scholars and artists as their army was to soldiers of fortune. Thus it came about that much of their military architecture was introduced directly from Europe, and that Persia played a more important part in the development of their civil architecture than in that of any other contemporary Indian style. Some of the monuments erected by the Bahmanis, such as the Jami' Masjid at Gulbarga are definitely known to have been erected by Persian architects; others, such as the Chand Minar at Daulatabad (1435) and the College of Mahmud Gawan at Bidar (1472) are so predominantly Persian in character as to leave no room for doubt

that they were largely the work of architects and craftsmen from that country; others, again, exhibit obvious Persian inspiration, but in a more partial and indirect form."[105]

The Mosque of Qutb al-Din Mubarak Khalji at Daulatabad, dated A.H. 718/A.D. 1318, is probably the earliest surviving Muslim structure in the Deccan. It is a square, 260 feet each way, assembled into the usual orthodox plan out of destroyed Hindu pillars, brackets, and beams. The Mosque with its five-aisled *liwan* and entrances in the middle of its east, north and south sides, lacks all originality in composition. It is said that the star-shaped Jaina Temple built in the Chalukya style at Bodhan in the 9th or 10th century was, also, transformed into a Mosque during the reign of Muhammad Tughlaq (A.H. 726-52/A.D. 1325-51).[147]

The foundation of Gulbarga as capital of the Bahmani dynasty marks the beginning of Persian architectural influence in the Muslim buildings in the Deccan. The celebrated Jami' Masjid according to the foundation inscription, was built by Rafi, the son of Shams, the son of Mansur of Qazwin, in the Fort of Gulbarga in A.H. 769/A.D. 1367, almost at the same time as the Adina Masjid at Hazrat Pandua.[148] Fergusson regards the Jami' Masjid at Gulbarga as "one of the most remarkable of its class in India"[80] It is an oblong structure which measures 216 feet by 176 feet. There are four stilted domes, while a fifth and larger one is raised on a square clerestory above the prayer hall. The two most distinguishing features of the mosque, which had a profound impact on the development of Muslim architecture in India, are, the broad squat arches, carrying transverse barrel structure without the usual open courtyard. So far as the latter is concerned, it is curious to note that it appears in the Kali and Khirki mosques at Delhi, built a few years after the construction of the Gulbarga Masjid. As Marshall says, "...it is not unlikely therefore that Jauna Shah's architect may have been acquainted with the design of this Gulbarga prototype and sought to improve upon it by introducing open aisles across the closed court and thus obviating the need for the admission of light and air through the surrounding cloisters."[105]

In the Masjid at Gulbarga the extensive central area, which in most cases is open to the sky, is entirely roofed over. This area is divided into small squares by rows of pillars, each covered by a cupola.[149] Fergusson observes, "On the Kulbarga plan, ...the solid roof covering the whole space afforded protection from the sun's rays to all worshippers, and every aisle being open at one or both ends, prevented anything like gloom, and admitted of far freer ventilation than was attainable in the enclosed courts, while the requisite privacy could easily have been obtained by a low enclosing wall at some distance from the mosque itself. On the whole, my impression is that the Kulbarga plan is the preferable one of the two, both for convenience and for architectural effect, so much so indeed, that it is very difficult to understand why, when once tried, it was never afterwards repeated."[80] This was probably owing to the conservative attachment of the Muslim planners to the orthodox mosque plan initiated by the Prophet's Mosque. Strange to say, many Bengali Mosques, namely, the Chamkatti Masjid, the Tantipara Masjid, the Lattan Masjid have no courtyard, and are in that sense enclosed (Pls. XVII, XX, XXVI).

The four-centred squat arches with low imposts also appear in the Audience Hall of Shitab Khan in the Fort of Warangal (A.H. 9th/A.D. late 15th).[84]

Like the Fort Masjid of Gulbarga, the Shah Bazar Mosque was built by Muhammad Shah Bahmani (A.H. 759-776/A.D. 1358-1375). Yazdani writes, "The extraneous elements having been in favour at the Deccan court, the architecture of the place began to be influenced by them and, in the later buildings of the Deccan, an unmistakable imitation of certain Persian and Turkish architectural features may be noticed."[149]

With the transfer of the capital from Gulbarga to Bidar the Persianizing tendency still continued, as demonstrated by the Madrasa of Mahmud Gawan (A.H. 886/A.D. 1481).[132] But in the plan of the later Deccani Mosques, the old early Islamic court-yard type reappeared, as shown by the Jami' Masjid of Bidar (A.H. 827/A.D. 1423-4) and the "Sola Khamba" or sixteen-pillared Mosque (A.H. 826-9/A.D. 1422-26).[148]

The trend and tendencies described above are in general terms applicable to Indo-Muslim architecture as a whole in the period in question, and the major areas of development have been examined, except only Bengal. This, as our area of special study, must necessarily be treated in greater detail, and accordingly is discussed in the following chapters.

NOTES AND REFERENCES

1. Clenahan, R. S., *The Moslem Mosque and the Christian Church*, in *Muslim World*, vol. XXXIII, 1942.
2. Wilber, D.B., *The Religious Edifice and Community life*, in *Muslim World*, vol. XXVI, July, 1936, No.3.
3. Thomas, B., *The Arabs*, New York, 1937. See also Grand-Pierre, C., *The Religious Background of Islamic Art and Persian Art*, New York, 1938.
4. *EMA*, vol. I. See also Pedersen, Johs, *Masdjid* in *EI*, vol. III, Part I, 1913.
5. *EMA*. See also Gertrude Bell, L., *Palace and Mosque of Ukhaidir*, Oxford, 1914. p. 145.
6. *EMA* : 100 cubits=56 yards; 7 cubits=10′-11″, high had a foundation of stone rising upon 3 cubits, the rest made of crude and unplastered bricks. They were laid in alternate courses, lengthwise and across, generally known as Flemish bond (Rhys, E., *Arabian Architecture*, in Lane, E.W., *The Manners and Customs of Modern Egyptians*, London, 1923, Appendix, E. See also *Dhira* in *EI*.
7. Hughes, T.P., *Mosque*, in *DI*, London, 1885. He observes that in a populous place, it is convenient although not essential to enclose the space by erecting a wall so as to form a court-yard called '*idgah*'.
8. Muir, W., *The Life of Mahomet*, Edinburgh, 1912.
9. Huart, C.I., *Liwan*, in *EI*, vol. III, 1930. It is interesting to compare *liwan* with ivan, a vaulting hall or apadana of Persian origin. Ivan forms a typical example of Persian Islamic Mosques. (*SPA*, vol. II) Doughty refers to the Diwan of Madain Salih as a rock-cut *liwan* or hall or council of chamber. It has flat ceiling, cornice, pilasters and is non-sepulchral (*Travels in Arabia Deserta*, vol. I, London, 1923).
10. *EMA*, Margoliouth, depending on an authority which he did not quote observes that the houses of the wives of the Prophet were not buildings but huts belonging to a certain Harithah, son of Al-Nu'man, who retired from each as soon as the Prophet required it. (*Mahommed and the Rise of Islam*, 3rd Edition, London, 1905, p.221). His-

torical account as well as modern research in the field prove incorrectness of the statement of Margoliouth. The *Hujra*, measuring 6-7 cubits square, as stated earlier, had only two houses at the beginning for Bibi Sawda and Bibi 'Aisha. The number rose to nine, four of which were built with unburnt bricks. Four rooms were partitioned off by palm branches, the rest made of palm twigs and leaves plastered with mud and without any separate apartment. A curtain of black hair cloth used to hang on the door for privacy.

11. Briggs, M.S., *Moslem Architecture in Egypt and Palestine*, Oxford, 1924.
12. f.n. 10; Margoliouth states that the direction of prayer was the unconscious revival by Islam of the old example practised by the Jews by opening their windows to the city of Daniel (f.n.8).
13. The Qur'an, Surah : ii, 144.
14. Arnold, T.W., *The Preaching of Islam*, Oxford, 1935.
15. f.n. 4. The Prophet's Mosque is also known as "*Masjid al-Qiblatayn*", meaning mosque of two *qiblas*, which was caused by the transfer of the *qibla* from the north to the south. The southern entrance was closed to accommodate the mihrab. The entrances, namely, *Bab-i-Atika* or *Rahma* on the west and *Bab-i-Nisa* on the east were left undisturbed.
16. Richard Burton, R.E., *Personal Narrative of a Pilgrimage to Al-Madinah and Mecca*, London, MDCCCXCIII (1893), vol. I. See also f.n. 7.
17. Diez, E., *Mihrab*, in *EI*, vol. III, Part I. He says that the *qibla* was originally indicated not by a niche but by some mark such as a strip of paint of a flat stone marked in some way. The Arabian use of the slabs to indicate the *qibla* instead of a niche survived alongside the *mihrab* and in spite of it for several centuries within and without Arabia. Modern examples of similar *mihrabs* are to be found at Mosul.
18. Hughes, T.P., '*Azan*, in *DI*. Referring to Bingham (*Antiquities*, vol. II, Book viii, ch. vii), Hughes relates that in the monastery of Virgins which Paula, the Roman lady of fame set up and governed at Jerusalem, the signal for prayer was given by one going about and singing Hallelujah, for that was the call to Church, as Jerome informs us. The Christian bell is often termed nakus, derived from nagosha, employed by the Mesopotamian Christians. (*EMA*, vol. I) The Muslims heard the Jews blowing a horn, a device to attract people for religious communion (Gotheil, R.J.H., *The Origin and History of the Minaret*, in *JAOS*, 1909).
19. *A Short Account of EMA*. Creswell rightly says that in the time of Muhammad no such things as a minaret was known.
20. f. n. 8. The '*Azan* was suggested to the Prophet by 'Umar Ibn Khattab or by Abdullah ibn Zubayr, according to another tradition. (Creswell, K.A. C., *The Evolution of the minaret with special reference to Egypt*, in *BM*, vol. XLVIII, March, 1926, Part I). The Umayyad poet Farazdak speaks of the '*azan*, as being chanted from the wall of every city, referring to Iran and Syria. (*EMA*, vol. I.)
21. Diez, E., *Manara*, in *EI*, vol. III, Part I, 1936.
22. f.n. 8 & 16. A branch of a date tree was planted on the spot from where the Prophet delivered the Sermon before the introduction of minbar. They are described as weeping or moaning post (*ustawanat al-Hannanabi*) for it was said to be moaning loudly at its replacement by the stepped minbar.
23. Strzygowski, J., *Art (Muhammadan)*, in *ERE*, vol. I, 1908.
24. Becker, C., *Die Kanzel im Kultus des alten Islam*, Grieszen, 1906.
25. Lammens, H., *Mo'awiya*, in *Melanges de la Faculte Orientale*, Beyrouth, II. See also his *Zaid ibn Abihi*, in *Estratto della Rivista degli studi Orientali*, IV, Roma, 1912. He considers the batons of common stated by Procopins to be the prototypes of *minbar*. He supports his views by the fact that immediately after the conquest of Iraq and Basra,

the military headquarters had their *minbars*. It is important to note here that had there been any *minbar* in the early mosques of Kufa and Basra, they would have been mentioned by historians (f.n. 19).

26. Horovitz, J., *Bemer Kungen zur Geschichte und Terminologie des Islamischen Kultus*, in *Der Islam*, XVI, 1927. Elucidating the points of Becker, Rhodokanakis and Lammens, he states that the Prophet received embassies seated on the throne-like *minbar*. The main purpose of the *minbar* has best been borne out by Muir in these words : "with a view of being better seen and heard at Public Worship", the Prophet, a middle-sized man, chose a pulpit. (f.n.8).
27. Schwally, F., *Lexikalische Studien*, in *ZDMG*, L II (1898). Quoting the *Kitab al-Aghani*, he traces the *minbar* back to pre-Islamic days, when it was used as a magistrate's seat. The throne idea of the *minbar* came from the East, specially, Persia, as exemplified by the ornamental thrones in the sculpture, paintings and architectural styles (Becker). The raised platform was also known in Greece by the term Bema, made of either wood or stone. Glaser observed an altar at Marib which looked like a single stepped *minbar*. (Nielsen, D., *Handbuck Der Altarabischen Altertumskunde*, I Band, Kopenhagen, 1927, Abb. 65) It was found also in the early Christian Churches as well as in synagogues such as Beth Alpha. (Fletcher, B., *A History of Architecture*, London, 1961, Figs. C.E.I; Sukenik, E.L. *The Ancient Synagogue of Beth Alpha*) Such an elevated Stoa meant for the priest was found in the 6th century mosque at Aleppo.
28. f. n. 19. Farazdak, the illustrious Umayyad poet, says, "And he who has inherited the two woods (*minbar* and staff) and the signet ring" meaning *minbar* and *Sutra* (Becker, p. 342).
29. Miles, G.C., *Mihrab and 'Anazah*, in *Archeologica Orientalia*, in memoriam Ernst Herzfeld, New York, 1952.
30. Richmond, *Moslem Architecture*, London, 1928.
31. Creswell, K.A.C., *Coptic influences on Early Muslim architecture*, in *Bulletin de la Societe* D'archeologie Copte, Tom, V, 1935, Cairo.
32. The Qur'an says, "Believers; when ye prepare yourselves for prayer, wash your faces and hands and your feet to the ankles." The Prophet regarded ablution as the half of the Faith and the key to Paradise. Fountain was built in the court-yards of the Mosque of Damascus (A.H. 86-96/A.D. 705-715) and the Mosque of Ibn Tulun at Cairo.
33. Caetani, vol. I. Quoting profusely from the traditions, he discusses the secular aspects of the Prophet's Mosque at Madina, such as, sheltering refugees (*ahl al-Suffa*) accommodating his family members (*hujra*), resting place, prison-house, asylum for sick and wounded, stable, dancing hall, spitting on the ground, lack of sanctity by allowing dogs to enter the court-yard and absence of any reference to it in the Qur'an. Incidentally, there is a reference in the Qur'an in Sura ix, 108 : "Never stand in it : certainly a mosque founded on piety from the very first day is more deserving that you should stand in it." Some commentators regard this as the 'Quba Mosque, while others the 'Prophet's Mosque at Madina. Muhammad Ali observes, "the words are so general that every mosque raised for the service of Allah may be included in this description."
34. f.n. 30. Against the generally accepted view, Diez thinks that the Prophet's house in Madina was a *dar* of the usual local type quite unsuitable as a model for the future mosque. (*Masdjid*, in *EI*; vol. III, Part I.) See also Saladin, J., *Architecture (Muhammadan)*, in *ERE*, vol. I.
35. f.n. 4. *Ahl al-Madr* or house of mud consists of a series of small rooms arranged quite irregularly around an open court, serving as the rendezvous and workshop of the family. They are enclosed by a wall for seclusion and privacy and entered by only one door (Gertrude Bell; Kasdorff, R., *Haus und Hauswesen im alten Arabien Bis zur zeit des chalifen Othman*, Halle, 1914.

36. f.n. 4. See also Rivoira, p. 3. The existing mosque was enlarged to 140 cubits from north to south and 120 cubits from east to west from 110 cubits square. Moreover, three more doors were added to the three already existing ones. The roof-supporting palm trunks were replaced by wooden columns.
37. *EMA*, vol. II. Tabari refers to it by the term *Manqusha*, employed as columns as well as in the wall.
38. *Mosque*, in *DA*, vols. v-vi.
39. f.n. 30. The site was occupied by the sellers of soap and dates, like the palm grove of the Prophet's Mosque. From an elevated spot a bowman threw arrows to the north, west, east and south. This is known as *gowla* or bow-cast, reckoned to be from 200 to 300 cubits.
40. f.n. 25. Lammens wrongly thinks that the roof was supported by colonnades like the roofs of Greek Churches.
41. f.n. 4. The building materials were procured from the castle of al-Hirah belonging to the Family of Mundhir of the Lakhmid dynasty, at the beginning of the 7th century A.D. with the intervention of Khusrau Parvez.
42. Butler, A.J., *The Arab Conquest of Egypt and the Last Thirty Years of the Roman Dominion*, Oxford, 1902. See also Corbett, K, *History of the Mosque of 'Amr*, in *JRAS*, 1890.
43. Creswell K.A.C., *Architecture*, in *EI*, vol. I, NE, 1960.
44. Diez, E., *Mosque*, in *EI*, vol. III, Part I, 1936. The columns were quarried under the superintendence of al-Hajjaj ibn 'Atifi ath Thaqafi.
45. Pedersen Johs, *Masdjid*, in *EI*, vol. III, Part I. *Maqsura* includes the *mihrab* and its neighbourhood. The first *maqsura* was probably established by Mu'awiya after he was wounded by a Kharijite rebel. According to others, it was introduced by Marwan, after having been stabbed by a Yemenite. Creswell, however, ascribes this feature to Mu'awiya.
46. f.n. 4. The existence of a communicating door between the *liwan* of a mosque and an adjoining building is also to be found in the Adina Masjid at Hazrat Pandua.
47. Streck, M., Al *Mada' in EI*, vol. III, Part I.
48. Khan F.A., *Banbhore*, Department of Archaeology and Museums (Pakistan), 1963.
49. Creswell, K.A.C., *The evolution of the (minaret) with special reference to Egypt*, *BM*, No. CCCLXXVI, vol. XLVIII, March, 1926. He criticizes Thirsch's theory about the origin of the minaret from the Ptolemic Lighthouse or Pharos of Alexandria.
50. Conder, C.R., *The City of Jerusalem*, London, 1909.
51. f.n. 11. Many historians have wrongly described the Dome of the Rock as the so-called Mosque of 'Umar. Alculph, a Gaulish pilgrim describes the Mosque in A.H. 18-21/A.D. 639-42, "Also in that famous place where before, the temple had been magnificently built, the Saracens frequent a square house of prayer placed near the east wall, building it themselves a poor work with upright beams and great planks of certain remains of ruins, which house is said to hold as many as three thousand men together."
52. Richmond, E.T., *The Dome of the Rock in Jerusalem*, Oxford, 1924, Figs. I, 14-34.
53. *SPA*, II, It was a model for the octagonal buildings in Persia as well as India, namely, the Mausoleum of Sultan Oljeitu at Sultaniya (A.H. 703-16/A.D. 1304-16) and the tomb of Khan-i-Jahan Tilagani at Delhi (A.H. 770/A.D. 1368-9) and also the Lodi tombs at Delhi (A.H. 855-932/A.D. 1451-1526). The double-dome is also to be seen in Central Asia and India, such as the Gur-i-Mir in Samarqand (A.H. 807/A.D. 1404-5) and the tomb of Humayun at Delhi (d. A.H. 963/A.D. 1556). Brown, P., *Indian Architecture (Islamic Period)*, Bombay.
54. f.n. 30. The Aphrodito Papyri preserved in the British Museum reveal the fact that Coptic artisans were engaged by al-Walid. (Beb, H.I., *Greek Papyri in the British Museum*, IV, The Aphrodito Papyri).
55. *ASR*, XV.
56. Berchem, M. Van., *Architecture (Muhammadan)*, in *ERE*, vol. I, 1908.

57. Jackson, A.V.W., *Art (Persian)*, in *ERE*, vol. I, 1908.
58. Marcais, G., *'Abbasid Art*, in *EWA*. vol. I, 1958.
59. Thomas, *The Arts*, New York, 1937.
60. f.n. 19. The Bull Mosque at Qazwin in A.H. 91/A.D. 711. The Friday Mosque of Istakhr is dated A.H. 29/A.D. 649-50.
61. Creswell, K.A.C., *Great Mosque of Al-Mansur at Baghdad*, in *Iraq*, vol. I, 1934.
62. Creswell traces the origin of the pointed arch to the pre-Islamic Syrian building at Qasr ibn Wardan, dated A.D. 561-64. Pope says, 'From Persia the pointed arch spread through Mesopotamia to the Mediterranean.'
63. Gertrude Bell, L., *Amurath to Ammrath*, London, 1911; Fikry, A., *La Grande Mosquee de Kairovan*, Paris, 1934, Fig I.
64. Fehervari, G., *Development of the Mihrab down to the XIVth century*, vol I, Text, unpublished Ph.D. Thesis, University of London, 1961.
65. It may be recalled that Bell considers the 'broken through' mihrabs to be openings on the *qibla* side as doors. On the contrary, both Herzfeld and Creswell regard those as forming *mihrabs*.
66. f.n. 37. Page, J.A., *Guide to the Qutb Delhi*, Calcutta, 1927.
67. Fergusson, J.A., *History of Architecture*, London, 1910.
68. Lane Poole, S., *The Art of the Saracens in Egypt*, London, 1888. See also Creswell K.A.C., *Some newly discovered Tulunid ornament*, in *BM*, 1919, Nov. vol. XXXV.
69. Spiers, R.P., *Arch* in *EB*, vol. II, writes about the pointed arch, "it was not used systematically as an architectural feature till the 9th century, in the mosque of Tulun at Cairo."
70. Ware, W.R., *Saracenic Architecture*, in *Harvard Engineering Journal*, vol. IV, April, 1905, No.I.
71. Grousset, R., *The civilization of the East*, vol. I, *The Near and Middle East*, Eng. Tr. by C.A. Phillips, London, 1931, See also Browne, E.G., *A Literary History of Persia*, vol. I, London, 1951.
72. Creswell, K.A.C., *Architecture*, in *Denison Ross Persian Art*., London, 1930. In connection with stalactite, Ware says that tomb of Zubaida and the so-called tomb of Ezekiel, near Baghdad, built during the reign of Caliph Harun ar-Rashid (A.H. 170-193/A.D. 786-809), are formed of little niches piled one above another in an endless variety of fantastic combinations.
73. Pope, A.U., *Persian Architecture : The Gorgeous background of all Persian Art*, in *Country Life*, Jan, vol. CL, 1931.
74. Anon, *The Builders*, vol. CL. 1936.
75. Pope, A.U., *An Introduction to Persian Art*, London, 1930.
76. Fry, R., *Some Aspects of Persian Art*, in *an illustrated souvenir of the exhibition of Persian Art*, London, 1931, Intro. XVII.
77. f.n. 53. Strabo reports that the scarcity of wood and stone inevitably led to brick architecture. There are, however, a few stone buildings such as the 11th century stone caravanserai between Firuz Kuh and Simnah at Alvand, and 14th century stone caravanserai at 'Ali-Abad between Sava and Rayy. Creswell mentions about the sun-baked clay domes, 20 feet in dia meter and 30 feet high in the territory, formerly in German Cameroons, which are possible only due to the relative scarcity of brick. (Creswell, K.A.C., *Persian domes before A.D.* 1400, in *BM*, vol. XXVI, 1915)
78. f.n. 53. The archaeological finds confirm the historical and hagiological references to the employment of mud and burnt bricks. The Bible refers to the tower of Babel, built of burnt bricks (Genesis, xi, 3). Burnt bricks have been traced back to the third millennium B.C. in Mesopotamia and Persia. In these brick building regions, both square and oblong bricks were used. The reduction of the size of pre-Islamic bricks (4th century B.C. Mesopotamian bricks measure 16 inches X 18 inches X 2 inches : the Mosque of Samarra dated A.H. 246/A.D. 860-61, bricks measure 9¾ inches X 10½ inches), led to structural and decorative inventiveness. (Smith

M.B., *Persian Islamic brickwork*, in *AF.* vol. LVII, New York, 1932; Diez, E., *Islamische Baukunst in Churasan*, Hagen (West Phalia), 1923.

79. Clark and Lewis point out, "The Persians held us under debt for the mode of lightning small star-like holes through the domes or vaults" (*Persian Architecture and construction*, in *RIBA*, Trans, vol. XXXI, 1880-1), See also Pope, A.U., *Some features of Persian Architecture*, in *JRIBA*, 1931, vol. XXXVIII. According to Pope and Creswell the squinch was a fundamental discovery in architecture credited to the Persian Architecture.
80. Fergusson, J., *History of Indian and Eastern Architecture*, London, 1876.
81. Briggs, M.S., *Gothic Architecture and Persian origins*, in *BM*, vol. LXII, 1933. Pope says that pointed arch was carried from Egypt (Ibn Tulun's Mosque, 869 A.D.) and Sicily (Bridge of Admiral Don Georgio of Antioch in Palermo) to the Isle de France and England by the Normans. According to Briggs, the 15th and 16th century Tudor arch of England was direct copy of the Cairo and Isfahan arches, as observed in Oxford and Hampton Court, London.
82. Briggs, M.S., *Mosques and Minaret*, in *JRSA*, LXXIX, 1931.
83. f.n. 53. Domes existed for thousands of years in different parts of Europe, e.g. Mycenae, which are corbelled. In ancient Egypt domestic buildings were probably roofed with domes. Representations of domes are to be seen in the Assyrian bas-reliefs, as observed in the wall slab at Nineven. Fletcher, regards the dome as "a traditional feature of the East (f.n. 27.) Creswell points out that the Roman dome is basically different from the Persian dome found at Sarvistan and Firuzabad, depending on the method of transition, since the latter always used the squinch.
84. Brown, P., *Indian Architecture* (*Islamic period*), Bombay,
85. See also Ricardo H., *The Architects' use of enamelled tiles* : *Their qualities and technique*, in *A.R.* vol. XI (ii). 1902. The technique of stucco designs went as far back as Pre-Archaemenian. However, Sasanian stucco designs came to light after the German exploration of 1929 conducted by Reuther and Kuhnel. They are dated from the fourth or even third century A.D.A relationship between the 'Abbasid examples at Samarra and the old Mesopotamian tradition has been established. (Edmann, K., *Partho-Sasanian Art* : *Oriental stucco decoration*, in *Apollo*, vol. 12, 1930, Fig. 12; Wilber, D.N., *The Development of Mosaic faience in Islamic Architecture*, in *AI*, VI, 1938.
86. f.n. 78. See also Stubbs-Wisner, B., *Persian Brick and tile Architecture*, in *Art and Archaeology*, vol. XXXIV, Jan-Dec. 1933. The technique of glazed tile was known to ancient Egypt as the excavations by Petrie at Tell-el Yahoudi and Ku-en-aten prove. Yet they are surpassed by Achaemenian tile works, the finest example of which is to be seen in the Louvre, Paris, e.g., the Archer from Susa.
87. f.n. 86. Calvert, A.F., *The Alhambra*, London/Liverpool, into, XXVII-XXVIII.
88. Diez, E., A *Stylistic Analysis of Islamic Art*, in *AI* vol. V.
89. Godard, M.A., *Les Anciennes Mosques de Iran. Communications at the Third International Congress on Iranian Art and Archaeology*, Leningrad, Sept. 1935, Reprinted in *Athar-i-Iran*, vol. I, 1936. See also his *L' Art de l' Islam*, Paris, 1962.
90. f.n. 54. Scholars have derived the Persian Ivan from the ancient apadana or large vaulted hall, such as at Firuzabad, Sarvistan, Taq-i-Kisra; Ghirshmann, R., *Iran* : *Parthians and Sassanians*, Tr. by S. Gilbert, London, 1962.
91. Godard, M.A., *L' Art de l' Iran*, Paris, 1962.
92. Sykes, P.M., *Ten Thousand Miles in Persia*, London, 1902 ; Meynard, C.B. de., also refers to a mosque at Harat said to have been built also by Ibn' Amir (*JA*, 5eme Serie, XIX, 1861).
93. f.n 53. Blind arcading is to be seen in the ornamental panelling in the facade of the Taq-i-Kisrā. Diez, E., *Iranische Kunst*, Wien, 1944, Abb. 40; *Die Kunst der Islamische Volker*, Berlin-Nevbabelsburg, 1915.
94. Date of the Sasanian Palace at Tepe Kisar is uncertain (f.n. 53)
95. Wilber, D.N., *Research Program*, in *BAIIAA*, vol. IV/2, 1935.

96. Denike, P.B., *Quelques monuments de bois sculpte au Turkestan occidental*, in *Ars Islamica*, II, 1935, Figs. 1, 3,5..
97. Rampel, L., *The Mausoleum of Isma'il the Samanid*, in *BAIIAA*, IV/A, 1936.
98. Wilber, D.N., *The Architecture of Islamic Iran, The Il-Khanid Period*, Princeton, 1955.
99. Gabriel, A., *Le Masdjid-i-Djum'a d'l Isfahan*, in *Ars Islamica*, II, 1935.
100. Creswell, K.A.C., *Polemics in Islamic Architecture*, in *Art Bulletin*, March, 1953.
101. Godard, A., *Historique du Masdjid-i-Djum'a d'Isfahan*, in *Athar-e-Iran*, Tome I, 1936. Fig. 176,
102. Godard, A.A., *Natanz, Athar-e-Iran*, Tome I, 1936.
103. Stein, A., *An Archaeological Tour*, in *Iraq*.
104. Creswell, K.A.C., *Indian Dome of Persian origin*, in *Asiatic Review*, V, New Series. See also his *Origin of the swelling Dome*, in *Indian Antiquary*, LI, 1922, Miscellanea.
105. Marshall, J., *The Monuments of Muslim Indian*, in *CHI*, vol. III, Cambridge, 1928.
106. Holmes, W., An *Introduction to Indian Art*.
107. *ASR*, 1862-63, vol.I.
108. Havell, E.B., A *Handbook of Indian Art*, London, 1920, says, "The Indian Mosque was the Hindu temple adapted to Muhammadan ritual." (*Ancient and Medieval Architecture of India*, London, 1915). Goetz, H., contradicts the view of Havell (*The genesis of Indo-Muslim Civilization—some Archaeological notes*, in *Ars Islamica*, vol. I, Part I, 1934.)
109. Khan, F.A., *Banbhore*, Department of Archaeology in Pakistan, 1963. See also Cousens, H., *The Antiquities of Sind with Historical Outline*, Calcutta, 1929; *AR, ASI*, 1904-5.
110. Codrington, K. de B., *The Place of Archaeology in Indian Studies*, Inaugural Lecture, delivered on Oct. 28th, 1948, Institute of Archaeology, 1949.
111. Hasan, S.M., "*The Mughal Portrait style*, in *Dacca University Studies*, vol. X, June, 1961, Part I, *The Mughal school of Zoological portraiture*, in *Art and Letters*, vol. XXXVII, No.I.
112. Chagtai, M.A., *Indo-Muslim Architecture*, in *Annals of the Bhandarkar Oriental Research Institute*, vol. XXII, 1941, Poona, 1942. See also Fisher, K., *Some Examples of Mutual Hindu-Muslim Architectural influence*, in *Indo-Iranica*, vol. VIII, March, 1955, No. I.
113. Smith, V.A., *A History of Fine Arts in India and Ceylon*, Oxford, 1911.
114. Pope, A.U., *Some interrelations between Persian and Indian Architecture*, in *AIPAA*, Reprint series No. 6, *IAL*, vol. IX. No. 2.
115. f.n. 84. The mosque of Badaon was originally built by Iletmish (A.H. 607-33/A.D. 1211-36) which was renovated time and again; Goetz, H., *The Pathan Tombs of Sarhind*, in *Islamic Culture*, vol. XIII, No. 3.
116. Creswell, K.A.C., *The Vaulting System of the Hindola Mahal at Mandu*, in *IA*, July, 1918.
117. Yazdani, G., *AR, DAND*, 1936-37, Pl. VIa, b. I owe this reference to Mr. J. Burton Page.
118. Cunningham, *ASR*, V, 1872-73, Pl. XXXIX. He writes, "The discovery of coloured fragments of a glazed blue oil lamp (1100 A.D.) proves the fact that the use of glazed tiles was brought into India by the Muslims."
119. Sherwani, A.K., *Mahmud Gawan, The Great Bahmani Wazir*, Allahabad, 1942.
120. Cousens, H., *The Antiquities of Sind with Historical Outline*, Calcuta, 1929.
121. Vogel, J. Ph., *The Mosaics of the Lahore Fort*, Edited by J. Marshall, Calcutta, 1920.
122. Briggs, M., *Islamic Architecture in Persia and India*, in *IAL*, vol. XX. No. 2, 1946.
123. Page, J.A., *Guide to the Qutb Delhi*, Calcutta, 1927.
124. Chagtai, M.A., *Pre-Mughal Architecture of Lahore*, in *The Proceedings of the Pakistan Historical Conference*, Second Session, Lahore.
125. Codrington, K. de B., *Akbar Master Builder*, in *IAL*, vol. XVII, 1943, NS, No. 1.
126. Burton-Page, J., *Dihli*, in *EI*, vol. I, NS. 1961.
127. Tod, J., *Annals and Antiquities of Rajasthan*, vol. I, Quoted by Sardar, H.B.,, *Ajmer*, Ajmer, 1912.
128. *ASR*, vol. II, 1864-65.
129. f.n. 55. Banerjee, S.K., *Iltutmish as seen in his monuments*, in *BPP*, 1938, Jan-June, vol. LV;

Naqvi, S.A.A., *Sultan Ghari, Delhi*, in *Ancient India*, No. 3, Jan, 1947 ; Blakiston, J.F., *Jama Masjid at Budaun...in the United Provinces, ASIM*, No. 19.

130. *ASR*, vol. VI, 1871-72.
131. *ASR*, vol. XI. See also Fuhrer., A., *The Sharqi Architecture of Jaunpur, ASI*, NS, vol. I, North Western Provinces and Oudh, Jaunpur, etc.
132. Codrington, K. de B., *An Introduction to the Study of Islamic Art*, in *IAL*, vol. VII, No. 2.
133. Terry, J., *The Charms of Indo- Islamic Architecture*, London, 1955. See also Burton-Page, J., in *BSOAS*, xix /2 (1957).
134. Burton-Page, J., *Djawnpur*, in *EI*, NE, vol. ii, 1960, Pl. IX.
135. Briggs, M.S., *Muslim Architecture in India*, in *Legacy of India*, Ed. by Garret, G. T., Oxford 1937.
136. Yazdani, G., *Mandu, the City of Joy*, OUP, 1929.
137. Goetz, H., *An irruption of Gothic style forms into Indo-Islamic Architecture*, in *Artibus Asiae*, vol. XXII, MCMLIX.
138. Burton-Page J., *Dhar*, in *EI*, NE, 1960, vol.ii, See also Barnes E.,*AR,ASI*, 1903-4, Calcutta, 1906.
139. Cambell, J.M., *Mandu*, in *JRAS*, *Bombay Branch*, vol. XIX, 1895-97.
140. Yazdani, G., *Preliminary Survey : Mandu*, in *Marg*, June, 1959, No. 3, vol. XII.
141. Burgess, J., *The Architectural Antiquities of Northern Gujarat, ASWI*, vol. IX, London, 1903.
142. Burgess, J., *On the Muhammadan Architecture of Bharoch, Cambay, Dholka, Champanir and Mahmudabad in Gujarat, ASWI*, vol. VI, London, 1896, Pls. II-VI.
143. Burgess, J., *The Muhammadan Architecture of Ahmadabad*, Pt. 1, 1412-1520, *ASWI*, vol. VII, London, 1900, Pls. III, XI.
144. f.n. 84. He regards the brick architecture of Dholka as probably "a provincial form of the architecture of southern Persia, with which country India had close commercial relations", but this view does not seem to be tenable.
145. Burton-Page, J, *Campaner*, in *EI, NE*, vol. ii, 1961.
146. Smith, E.W., *The Mughal Architecture of Fathpur*-Sikri, Part III, Allahabad, 1897.
147. Hasan, S.M., *Adina Masjid at Hazrat Pandua*, 1970, Pl. X; see also Pl. XXXIX.
148. Yazdani, G., *Bidar*, writes, "The monarchs of the former dynasty (Bahmani), therefore, drew inspiration in cultural matters from Persian and Western Asiatic countries, and their courts were thronged by poets, divines, artists from those countries. The influence of Persia on the development of the Muslim Architecture of the Deccan is thus more prominent than her influence on contemporary architecture in Northern India."
149. Yazdani, G., *Annual Report of the Archaeology Department of His Highness the Nizam's Dominion*, 1915-16, Calcutta, 1917, Pl. I(a), II(a), (b).

3

MOSQUES OF PRE-MUGHAL BENGAL

I THE VAULT AND DOMED TYPE

"THE Bengali style being", as observed by Fergusson, "however, the only one wholly of brick in India proper has a local individuality of its own, which is curious and interesting......"[1] The pre-Mughal mosques of Bengal which are marked by ambitious planning, distinctive architectural features, like the pointed arch, curvilinear roof and the carved brick designs and glazed tile decoration, are classified stylistically into four separate groups :

(I) **The Vault and Domed Type**
(II) **The Square Domed Type**
(III) **The Oblong Multi-Domed Type**
(IV) **The Hut-Shaped or Curvilinear Type**

The vault and dome type is characterized by an oblong *liwan* divided by a nave into two bays, vaulted *iwan*, ribbed vaulting of the *iwan*, hemispherical domes without drums, absence of corridor, corner towers, curved battlements, stone casing, carved brick designs, stone carvings, glazed tiles, etc. The most representative, and, in fact, isolated examples of this distinctive type of pre-Mughal architecture of Bengal are : (A) the Adina Masjid at Hazrat Pandua and (B) the Gunmant Masjid at Gaud

(A) The Adina Masjid at Hazrat Pandua
(A.H. Rajab, 776/A.D. January-December, 1374-75)

Gaud (Fig. 1) and Hazrat Pandua[2] (Fig. 2), the two capital cities of Medieval Muslim Bengal, are situated in Barind,[3] an elevated tract watered by the Ganges, the Mahananda and the Purnabhava[4]. Situated in a comparatively new alluvial plain, still subject to fluvial action, the region around Gaud, consists of sandy clays and sands deposited on either side of the river Bhagirathi,[5] which receded three miles from its original bed as recently as the time of Colebrooke.[6] Geologically Hazrat Pandua belongs to the older alluvial formation which is composed of red clay banks, forming a high undulating surface broken up by deep stream beds or nullahs.[7] Throughout the region, the older upland alluvial tracts are known as Barind, the lower, more recent alluvium being known as *Bhangar*.

Formerly known as Lakhnauti, as stated by Minhaj-ud-Din Siraj, who visited the city in A.H. 641/A.D. 1243-44, Gaud has been described by Faria-y-Souza as follows : "Gour, the principal city of Bengal is seated on the banks of the Ganges, three leagues

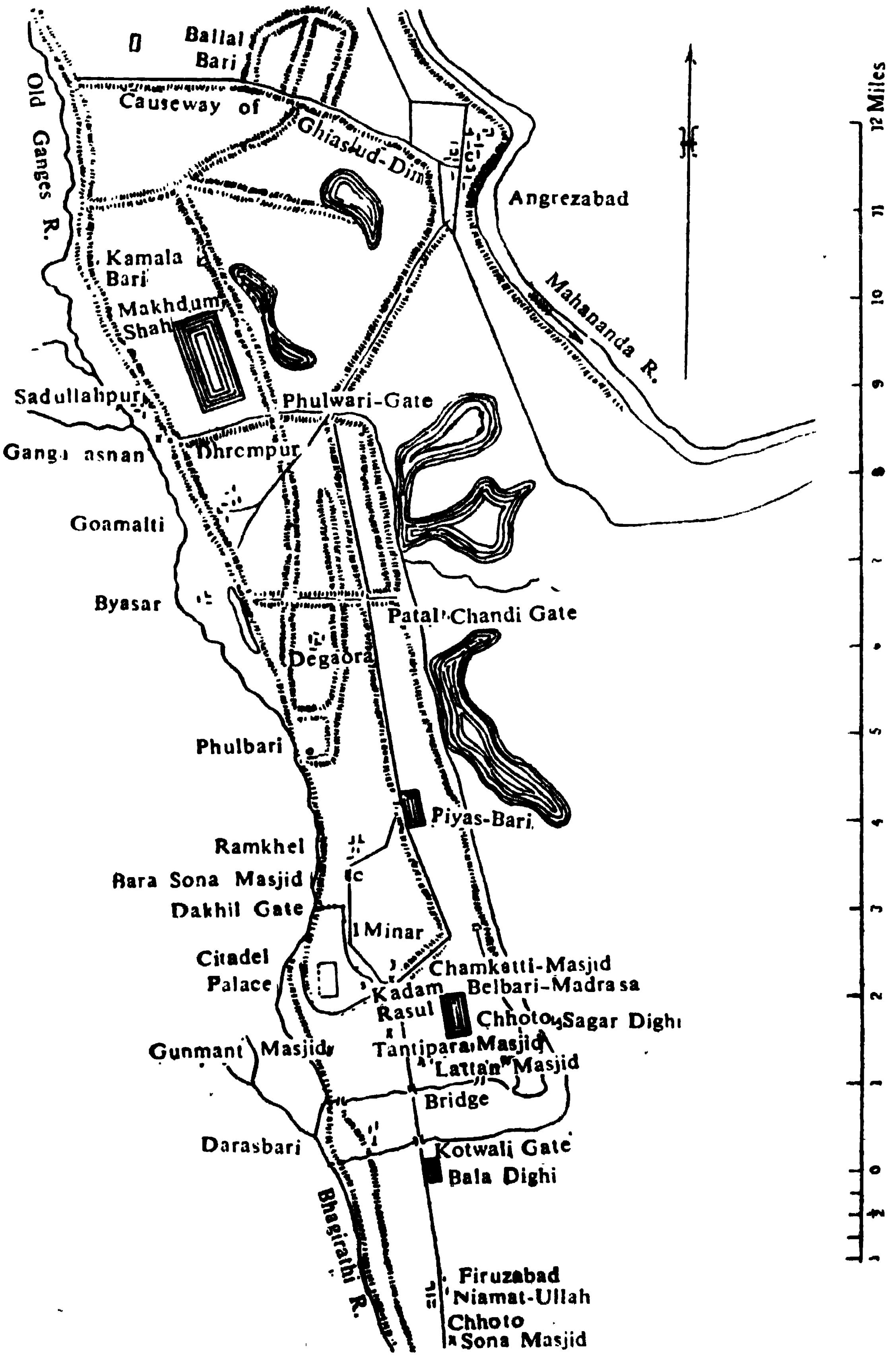
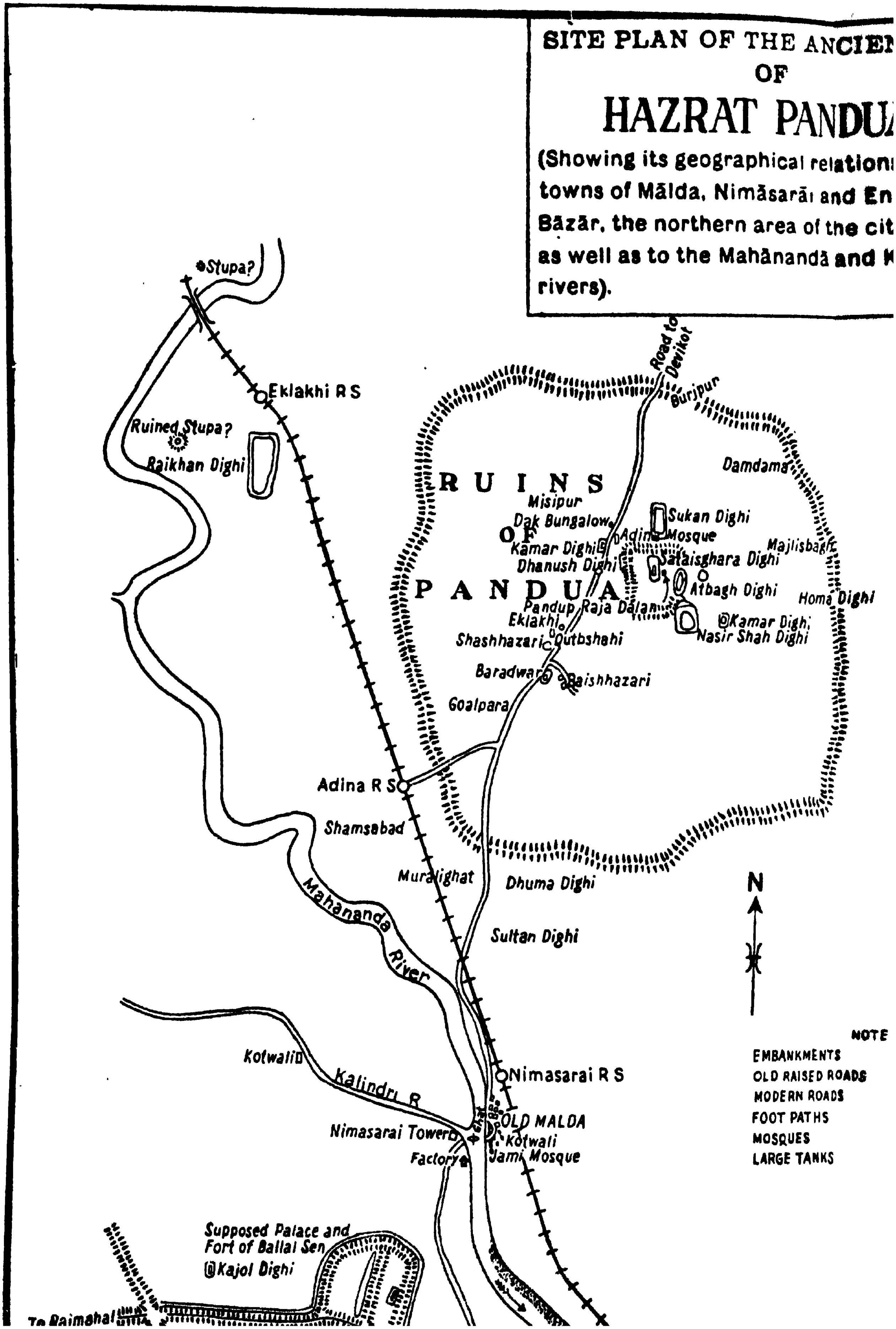


Fig. 1. Map of Gaud showing architectural sites


SITE PLAN OF THE ANCIE
OF
HAZRAT PANDU
(Showing its geographical relation
towns of Mālda, Nimāsarāi and En
Bāzār, the northern area of the cit
as well as to the Mahānandā and K
rivers).
Stupa?
Eklakhi R S
Ruined Stupa?
Raikhan Dighi
Road to Devikot
Burjipur
Damdama
RUINS
OF
PANDUA
Misipur
Dak Bungalow
Adina Mosque
Sukan Dighi
Kamar Dighi
Majlisbagh
Dhanush Dighi
Sataisghara Dighi
Atbagh Dighi
Homa Dighi
Pandup Raja Dalan
Eklakhi
Kamar Dighi
Nasir Shah Dighi
Shashhazari
Qutbshahi
Baradwari
Baishhazari
Goalpara
Adina R S
Shamsabad
Muralighat
Dhuma Dighi
Mahananda River
Sultan Dighi
N
Kotwali
Kalindri R
Nimasarai R S
OLD MALDA
Nimasarai Tower
Kotwali
Factory
Jami Mosque
NOTE
EMBANKMENTS
OLD RAISED ROADS
MODERN ROADS
FOOT PATHS
MOSQUES
LARGE TANKS
Supposed Palace and
Fort of Ballal Sen
Kajol Dighi
To Rajmahal

in length, containing one million and two hundred thousand families, and is well fortified. Along the streets which are wide and straight, are rows of trees to shade the people who are so numerous that sometimes they are trod to death".[8]

Like Gaud, Hazrat Pandua in the district of Malda, which includes the Barind, is an ancient city of historic fame,[9] being referred to in the Vedic Literature,[10] and the Epics as well as the Persian chronicles[11] and the accounts of the Chinese travellers.[12] The term Pandua may be said to have been derived from Pundra, signifying sugarcane of a particular species, called *Punri Akh* in Bengal, implying that it is a country of sugarcane. However, it has also been derived from *Pandubis* or water fowl with which, according to Cunningham, the place abounds.[13] However, the former interpretation is analogous with that of Gaud, which is presumably derived from *Guda* or molasses, manufactured from sugarcane.

Ma Huan writes, concerning the Kingdom of Pang-ko la (Bengal) : "It is a Kingdom with walled cities and (in the capital) the king, and officials of all ranks have their residences. It is an extensive country".[14] Considering the fact that he was the interpreter attached to the Chinese embassy which visited Bengal about 1406 during the reign of Sultan Ghiyas-ud-din' Azam Shah (A.H. 795-813/A.D. 1392-1410), his description of the city may reasonably be taken to be those of the then capital of Bengal, Hazrat Pandua. As Bhattasali puts it, "There is little doubt that the Chinese interpreter is speaking of the Kingdom of Ghiyas-ud-Din to whom the embassy was sent and who sent one in return."[14]

Hazrat Pandua was made the capital of Bengal by the founder of the Ilyas Shahi dynasty, Shams-ud-din Ilyas Shah in A.H. 743/A.D. 1342, after wresting the sovereignty from the Tughlaq Sultans of Delhi.[15] It remained the metropolis until the time of Sultan Mahmud Shah I, the founder of the Restored Ilyas Shahi dynasty (A.H. 841-93/A.D. 1437-87), who transferred it to Gaud.[16]

Remarking on the topography of the region of Gaud and Hazrat Pandua, Pemberton says, "The main road from Maldah to Dinajpur passes through the south-east part of the Pergunnah. On both sides of the road lie the ruins of Purroa which are very extensive".[17] (Fig.3) A long ancient road, paved with wedge-shaped bricks of great solidity traverses the city. It is from 12 to 15 feet wide and passes through the entire length of the city and was presumably lined with rows of brick houses on its two sides.[18] Striking in both its length and spaciousness, the road which provided a connecting link between Gaud on the south and Devikot in Dinajpur to the north,[19] was probably built by Ghiyas-ud-din 'Iwaz (A.H. 610-24/A.D.1213-27).[20]

Want of exploration has considerably impeded the archaeological study of both the important sites of Gaud and Hazrat Pandua. Hazrat Pandua is situated 11 miles from English Bazar and 20 miles from Gaud in a north-easterly direction.[9] Rennell thought that the metropolitan city of Hazrat Pandua exceeded the enormous area of 24 square miles.[21] Lying along the bank of the Mahananda river, it is narrow in plan and is divided from north to south into almost equal halves by the ancient road. A

map based on an aerial survey prepared by Pemberton and revised by Stapleton in 1930 shows the original rampart walls of the city and a passage through them at the north end of the road which is identified with the gate of the fortress *(Gardwar)*.[17] The locality known as *Burjpur* on the north of the embankment suggests that a Castle or *Burj*, a fortified stronghold must have existed somewhere in the area. There was also a gate at the south end of which the remains of the foundation still survive. Encircled by large suburbs towards the east and north for at least 12 miles, the city was beautified with noble edifices. The celebrated Adina Masjid (Fig. 3, Pl. I) stands on the right side of the ancient road leading to Devikot from Gaud.[22]

Shyam Prasad[23] points out the central situation of the Adina Masjid in the ancient city of Hazrat Pandua. The Bengali Mosque is, therefore, analogous in its position to the medieval mosques at Kufa, Basra, Fustat and Damascus which formed the nuclei of growing Muslim societies.[24]

The Adina Masjid at Hazrat Pandua, Bengal, is one of the most ambitious architectural projects ever essayed in the sub-continent of India. Considered to be "one of the wonders of the world by the Bengalis", as Cunningham puts it,[2] this magnificent building[18] represents a marked development of mosque architecture. Experimental as it is, in many ways, it demonstrates new architectural elements which were afterwards developed and elaborated elsewhere. Indeed, the Adina Masjid ushered in a brilliant era of architecture. Yet all these works are directly founded upon the traditions of Persian Islamic architecture, reworked in pre-Mughal India.

The most revealing fact about the Adina Masjid is its Persian appellation.[25] Wollaston[26] gives three terms when translating the Persian word for Friday, namely, *ruz-i-Jum'a*, روز جمعه ; *adina* ادينه ; and *yaumu'l-Jum'a*, يوم الجمعة. The Persian adina is, therefore, equivalent to the Christian Sunday or Jewish Sabbath. [27] However, the employment of the term Adina for a congregational mosque is not unprecedented, for there is an Adina Masjid at Patan, Gujarat.[28] The term is, however, somewhat obscure, and in any case seems to have purely Persian connections.[29] Curiously enough, the builder of this mosque, Sultan Sikandar Shah, entitled himself as "the great King, the Wisest, the most Just, the most Liberal and most Perfect among the Kings of Arabia and Persia".[3] This recalls the lavish terms of the *Prasasti* of the Sanscrit inscriptions. Sultan Ghias-ud-din 'Azam Shah, son of Sultan Sikandar Shah, once sent an incomplete Persian verse to the celebrated Persian poet, Hafiz, who supplied the appropriate missing lines of the distich.[30]

Beglar traces the origin of the Adina Masjid to pre-Muslim sources. He observes that the name itself is reminiscent of Aditya Sena Deva, the supposed progenitor of the Senas of Bengal, otherwise known as Adisur. He writes, "Was it then that this capital was at what is now known as Pandua, but whose ancient name was some derivative of Adisur, of which a reminiscence is preserved in the name of Adina, of the Masjid, which stands, where his capital once stood?" [31] He bases his arguments on the point that if the Adina Masjid occupies the site of a pre-Muslim Hindu temple, the name

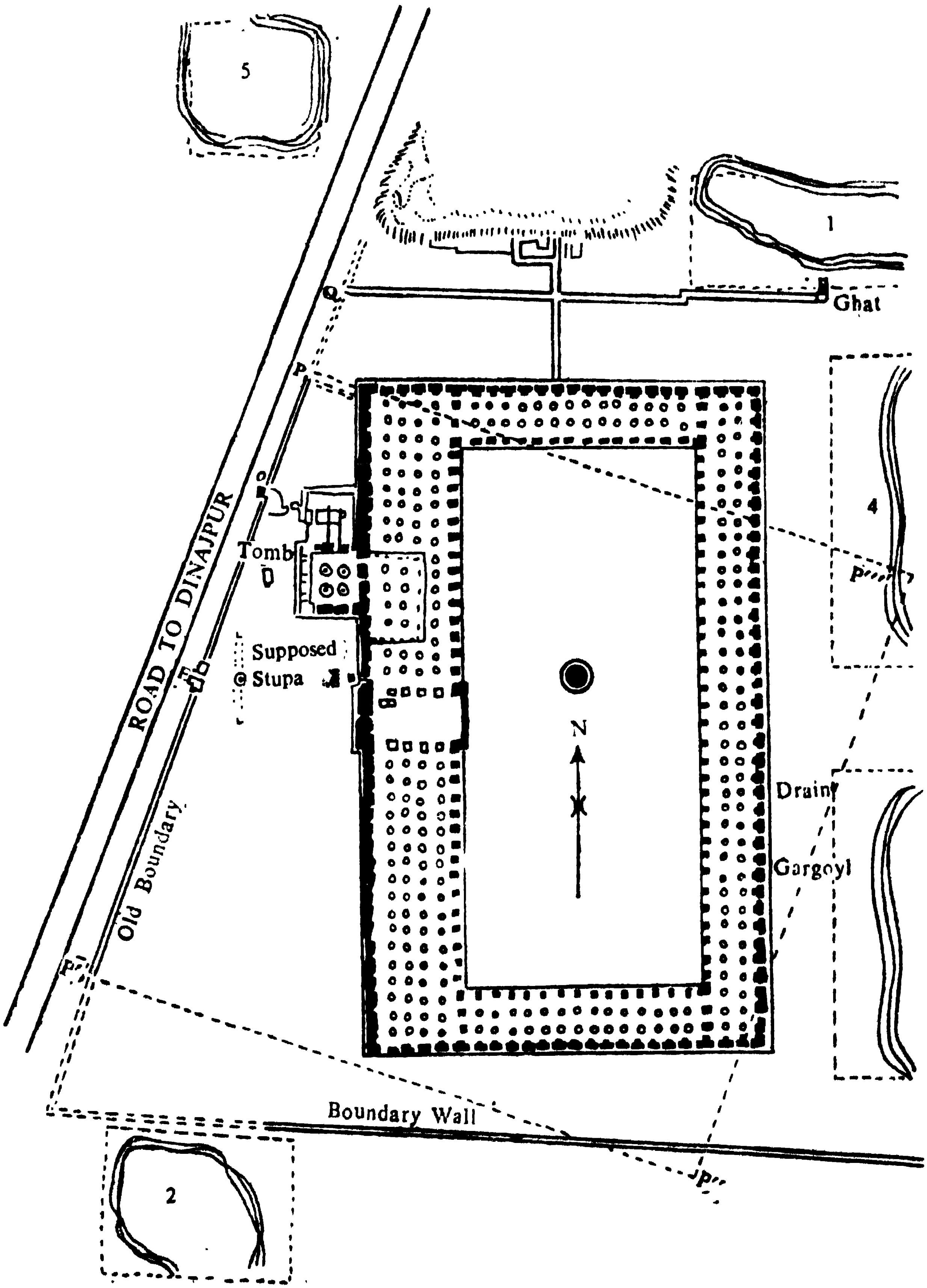


Fig. 3. Hazrat Pandua: The Adina Masjid: ground plan after Beglar

may be a reminiscent of Adisur, the so-called founder of the hitherto unidentified temple dating from the 7th century A.D.;[32] however, he does not know that there is a mosque at Patan, called Adina, and that it is a Persian term for Friday. The use of fragments of Hindu or Buddhist architectural works in the Masjid do not prove that the site was pre-Muslim. They may have been brought there. As he himself says, the excavations carried out in two places on the site as deep as 5 feet did not uncover any foundations of an ancient Hindu temple.[33] Incidentally, it may be recalled that Beglar carried out excavations at the Quwwat-al-Islam Mosque at Old Delhi under the supervision of Cunningham and noticed the foundation of pre-Muslim temples there.[2] He himself admits that this was not so at the Adina Mosque. In his map (Fig. 3) Beglar also sketched the circular basement of a supposed Buddhist Stupa to the west of the Mosque, but failed to uncover and reconstruct any kind of Hindu or Buddhist temple there.[34] It was presumably the foundation of a detached minar.[35]

The date of the construction of the Adina Masjid (Fig.7) is a matter of controversy among the scholars.[36] Cunningham saw the foundation stone, bearing the inscription "placed on the outside of the back wall, facing towards the high road".[2]

According to Horn, this interesting specimen of Bengal calligraphy in Arabic single line inscription with the usual flourishes and overlapped lettering measures 58" by 11". The inscribed area measures 57" by 9".

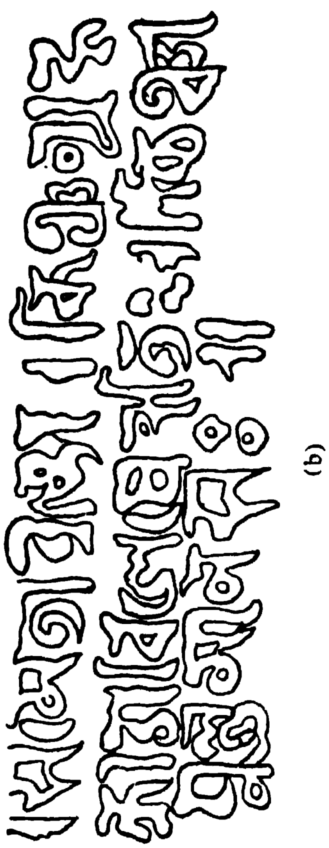
The epigraphical record is as follows :

Text :

امر ببناء [ال]عمرة هذا المسجد الجا (مع) فى ايا(م) [ال]دولته السلطان السلطان الاعظم الاعلم
الا عدل الاكرم اكمل [ال]سلاطين العرب و العجم الواثق بتائيد الرحمن ابو مجاهد سلطان
سكندر شاه بن الياس شاه السلطان خلد خلافته الى اليوم الموعود كتبه فى التاريخ رجب
سنة ست (و) سبعين و سبعمائة -

Translation : "This Jami' Masjid was ordered to be built in the days of the reign of the great Sultan, the Wisest, most Just, the most Liberal, the most Perfect of the Sultans of Arabia and Persia, who trusts in the assistance of the Merciful, Abul Mujahid Sikandar Shah, the Sultan, son of Ilyas Shah, the Sultan, may his reign be continued till the Day of Promise (i.e.. Resurrection). Written in Rajab in the year seven hundred seventy six", 776 (December-January, 1374-75).[10]

Certain elements in this inscription have led to controversy concerning its date. The inaccurate grammatical construction of the inscription is also apparent. Salim says, "And in the year 766 A.H. he (Sikandar Shah) built the Adina Mosque, but before he could finish it, death overtook him, and the mosque remained half-finished".[30] Besides being inconsistent with the epigraphic record, Salim's statement cannot be relied upon from the historical point of view. Considering A.H. 766 as the date of the beginning of the project, it would seem too long a time for Sikandar Shah who ruled from A.H. 758/A.D. 1357 to A.H. 792/A.D. 1389 to leave the Mosque incomplete.[37] His death in A.H. 792 which is confirmed in both numismatic and epigraphic records, would



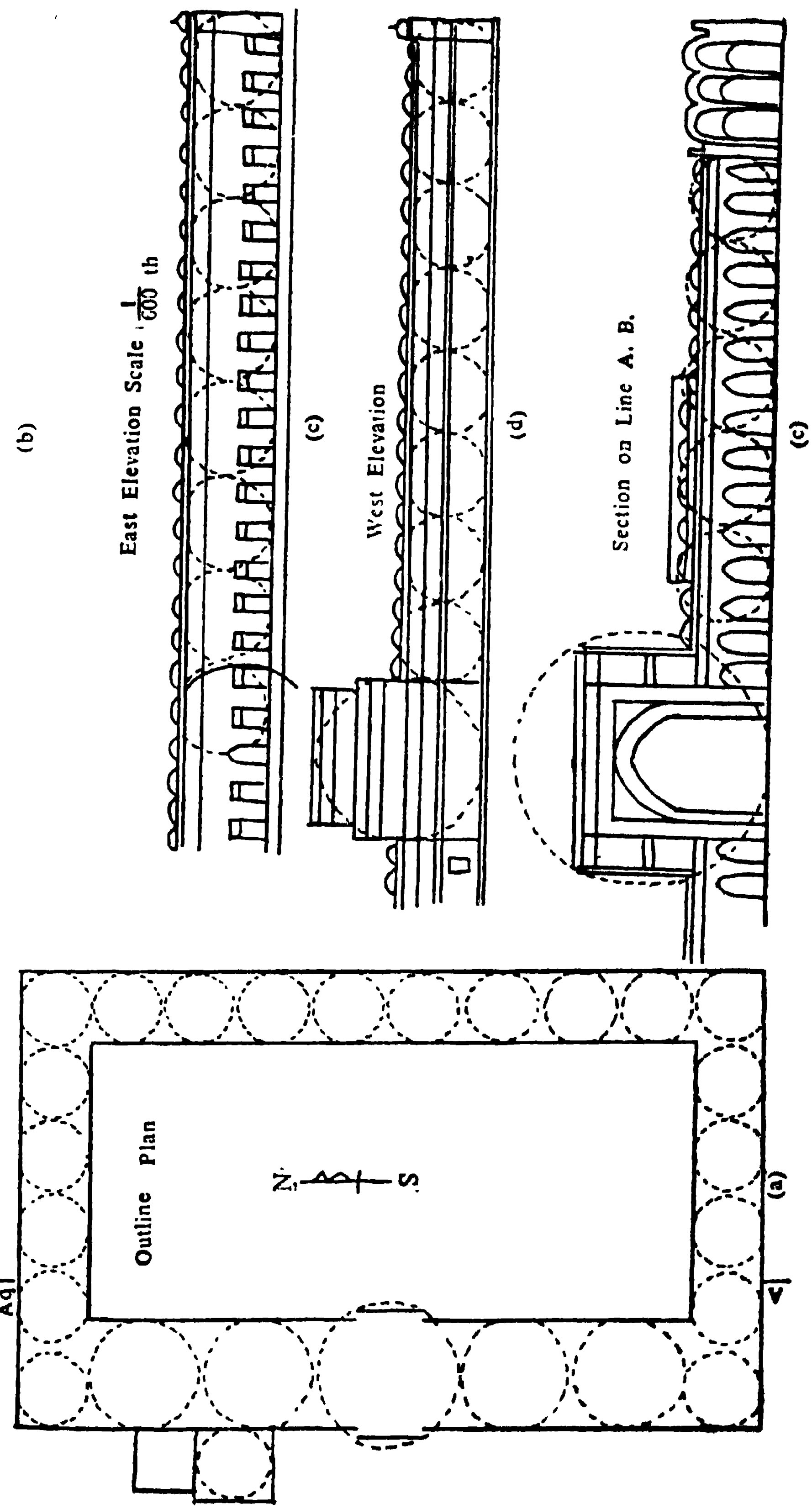


Fig. 4 Hazrat Pandua : The Adina Masjid ; (a) Ground Plan (b) Proto-Bengali Inscription : (c) East Elevation, (d) West Elevation : (e) Section on Line A. B. Outline

allow a period of 26 years for the construction of the Adina Masjid, and we know that mosques of gigantic size were built in a much shorter period.[38]

Horn observes, "We do not know in which year the Adina mosque was finished; the Riyaz mentions only that the beginning fell in the year 766 A.H. It is very probable that the actual building required a space of ten years, e.g., the Jami' Masjid at Kotila in Eastern Rajputana was erected within eight years, and ten are, therefore, not too much to allow for the erection of that 'gigantic barn', as Cunningham calls the Adina Mosque".[38] Horn, therefore, accepts A.H. 766, given by the Riyaz, as the date of the beginning of the project and suggests A.H. 776 as the date of its completion.

It would, therfore, appear that the mosque was started in the month of Rajab A.H. 776, corresponding to December-January, A.D. 1374-75, as the inscription states, but it should be noted that this date differs from those given by Salim,[30] Stewart[29] and Hamilton,[39] who prefer A.H. 766, 763 and 704 respectively.

Creighton, who paid due attention to the monuments of Gaud, did not mention the Adina Masjid. But it was described in detail by both Francklin[40] and Shyam Prasad.[41] Prasad's copy of the foundation inscription is identical with that of Francklin which has, however, a few inaccuracies : there is no كتبة after الموعود and before فى التاريخ ; moreover, he reads هذا العمارة as هذ العمارة - Depending on eye-copies, both Prasad and Francklin are doubtful of the date of the Adina Masjid as "سنة سبعة (سبعين) و سبعماية", rendering it as Hijra 707 or 770, corresponding to A.D. 1308 or 1369.[18] Prasad reads the month of Rajab before the year, ست رجب سنة سبعة و سبعماية , 6th Rajab, A.H. 707, corresponding to 1st January, A.D. 1308.[42] Blochmann re-published this inscription, after intensive study of the rubbing sent him by Cunningham and Heeley. As against Prasad's date of 6th Rajab, A.H. 707, Blochmann reads the date as 6 Rajab 770, corresponding to 14 February, A.H. 1369.[43]

In his edition of the *Khurshid-i-Jahan Numa*, Beveridge writes regarding this date, 'I am unable to come to any conclusion. Buchanan had it read to him as 704 and this is no doubt what is on the stone. That is, the Arabic word for the numeral is Sab'a (7) and not Sab'ain (70) as the facsimile in Ravenshaw, p. 70, shows. Ilahi Bakhsh admitted this to me when I saw him at Maldah, but remarked with truth that the date 707 was quite inconsistent with the chronology of Sikandar's reign. There is certainly a six in the inscription, but Blochmann has taken this to refer to the month, and in this he seems supported by the word *fil-tarikh*, which would lead us to expect to find the day, and not merely the month of erection. On the other hand Ghulam Husain must have read the six as relating to the year, for he gives the date as 766. He was obliged to make it 766 instead of 776, because his idea was that Sikandar died in 769. It may be remarked, too, that 776 is more consistent with Sikandar's not having been able to complete the mosque earlier than 770, for it seems that he reigned up to 792, though his later years were troubled by his son Ghiyas-ud-din. As the word in the

inscription is Sab'a, i.e., 7, and not 70, might not be that the engraver wrote six, seven and seven hundred, i.e. 776? I suppose it would be a grammatical error to write the date in this way, but then Mr. Blochmann tells us that there are numerous such errors in the Bengal Arabic inscriptions. They often consist, he says, of 'wrong constructions of the Arabic numerals'. He does not say that they mis-spell them".[34] Horn supports Ilahi Bakhsh's date of A.H. 776. Discarding the alleged readings of A.H. 707 or A.H. 770, he says, "The statement of the date at the end of the inscription is quite ungrammatical, if with Blochmann we read *rajab sitt*, besides the succession of the words should be *sitt rajab*. Grammatical mistakes are very numerous in Bengal inscriptions but the construction of *rajab sitt* instead of *sitt rajab* would be too faulty even for them. I, therefore, prefer to support *va* (and) before *sab' in* or to read the *va* standing before *sab'miat* twice, a case that occurs not at all infrequently". He, therefore, reads the رجب سنة ست (و) سبعين و سبعماية , Rajab, A.H. 776, corresponding to 6 December, A.D. 1374.[44] However, while Horn makes out the date as A.H. 776 by inserting *va* (و) between *sitt* (ست) and *sab'ain* (سبعين).[38] Beveridge rejects it as grammatically unacceptable.[45]

Curiously enough, 'Abid 'Ali gives another version of the reading of the date of the Adina Masjid. He reads *sitt* (ست) twice, once for the month and the other for the year, making 6 Rajab, A.H. 776, corresponding to 14 February, A.D. 1374. His transcription and his translation do not agree. In the translation he mentions 6 Rajab A.H. 770, corresponding to 14 February, A.D. 1369, while his text gives the date ست رجب سنة ست و سبعين سبعماية 6 Rajab, A.H. 776 by reading *sitt* (ست) twice as stated above and by supplying *va* (و) between *sab'ain* and *sab'amiat*.

Buchanan's date of A.H. 704 is not corroborated by historical and numismatic evidence. The date mentioned by both Francklin and Prasad does not agree with that of Buchanan, nor does the date of construction A.H. 763, given by Stewart.[46] As the early phase of Sikandar Shah's reign was convulsed by the second military expedition of Firuz Shah Tughlaq in A.H. 760,[30] it is probable that the ambitious project was not started either in A.H. 763, as stated by Stewart or A.H. 766, as mentioned by Ghulam Husain Salim.

The controversial reading of the date is due to its ungrammatical construction. If the *sanat* سنة is placed before *sitt* ست the date would be Rajab A.H. 776, if after *sitt*, ست , it would make 6 Rajab A.H. 776. It is however, customary to place *at-tarikh* التاريخ before the month or the days of the month, whereas the year is preceeded by *sanat*, سنة . The words are placed vertically above one another and they clearly give the date :

فى التاريخ رجب سنة ست (و) سبع(ين) و سبعماية

i.e., dated Rajab in the year A.H. 776, corresponding to December-January, A.D. 1374-75. It is given below as it appears in the facsimile و سبعماية

سبعين
ست
رجب

This reading of the date is strengthened by the insertion of *va* (و) between *sitt* (ست) and *sab'ain*, سبعين , which the engraver must have dropped inadvertently. Dani supports this view, when he says, "the photograph of the inscription clearly shows ست after رجب , and not before".[37]

Ghulam Husain Salim says, "Some trace of the Mosque (Adina) still exists in the jungles of Panduah, at a distance of one karoh from the town. The Author of this history has seen it. In truth, it is a beautiful Mosque, and an enormous sum must have been expended on its erection".[30] Taking into account the space of time required for such an imposing and awe-inspiring monument as the Adina Masjid and the expenses incurred, it is presumed that the most probable period for such a construction would be between the invasion of Firuz Shah Tughlaq in A.H. 760-1/A.D. 1358-59 and the deadly encounter of Sikandar Shah with his rebellious son Ghiyas-ud-din 'Azam Shah in A.H. 795/A.D. 1392. As Salim reports Sultan Sikandar Shah breathed his last on the battlefield of Goalpara in the deadly contest with his own son—a parallel example of which is found in the Persian story of Rustam and Sohrab, so picturesquely depicted by Firdausi in his *Shahnama.*

Therefore, if following Horn we allow a period of ten years for the completion of this ambitious project, we may say that the Adina Masjid was probably started in A.H. 776/A.D. 1474-5 and completed in A.H. 786/A.D. 1784-5. In other words, Sikandar Shah lived only six years after the completion of his gigantic architectural project, itself a landmark of Mosque architecture in India.[31]

It is obvious that the traditional square lay-out of the Prophet's Mosque at Madina, the Mosque of Kufa, the Mosque of Wasit, was not followed in the Adina Masjid, although some buildings in Gaud including the Eklakhi Mausoleum (Fig. 11), (A.H. 818-36/A.D. 1514-32), the Rajbibi Masjid (Fig. 15), (A.H. 841-92/A.D. 1437-80) and the Lattan Masjid (Fig. 14), (A.H. 899-925/A.D. 1493-1519) are built on the same plan.[47] The Adina Masjid conforms to the time-honoured rectangular planning demonstrated by the Great Mosque of Damascus,[48] the Mosque of Samarra, the Mosque of Abu Dulaf, and the Mosque of Ibn Tulun, all of which have been referred to earlier.[49]

Marshall attempts to reconstruct the Masjid visually (Pl. I). He writes, 'Imagine an immense open quadrangle, more than twice as long as it was broad, bounded on its four sides by arched screens, every archway (and there were 88 in all visible from the court) identical with its fellows and every one surmounted by an identical dome,

with nothing to relieve the monotony of the whole save a single archway which, rising higher and wider than the rest, fronted the vaulted liwan in the middle of the western side".[50]

Externally, the Adina Masjid measures a total area of 516 feet north and south and 313 east and west[51] (Figs. 3, 4 & Pl. I). Internally it is defined by the four great pillared aisles, which surround the inner wide court on all four sides. As Fergusson puts it, "In the centre it contains a courtyard nearly 400 ft. by 154 ft, surrounded on all the sides by a thick wall of brick, divided by eighty-nine similar arched openings, only one of which, that in the centre of the west side facing Mecca, is wider and more dignified than the rest".[52] In point of fact the arched openings around the wide open courtyard which give the impression of a forum or a big caravanserai, according to Cunningham are 94 in all, and are distributed in the following manner : the central lofty *liwan* arch, 15 openings on each side of the central *liwan* arch, 15 on each of the northern and the southern *riwaqs*. and 33 in the eastern *riwaq*.[50]

As shown in the plan given in Fig. 4, the *liwan* of the prayer hall stretched right across the full width of the Mosque, that is right across the central courtyard and the side aisles. The depth of the *liwan* is about one-fifth of the total depth of the Mosque. It measures, therefore, 516 feet in width and 75 feet 5 inches in depth. As Fergusson points out, the *liwan* consists of two wings, supported on pillars, divided by an oblong vaulted nave.[53] According to Buchanan, the central vaulted hall measures about 64 feet from the east to the west, 32 feet from the north to the south, and 62 feet from the floor to the centre of the *liwan* arch.[7]

The central vaulted nave (Figs. 4, 5 & Pl. II), in the centre of the western wall of which is placed the *mihrab*, had a central arched opening, set high up in the wall. The easternmost opening of the central hall, the facade of which has been severely damaged, can be reconstructed with reference to the blind arches on either side. It consists of a large central arch on the lines of the surviving arch above the central *mihrab*. As Cunningham states, "Both arch and vault have now fallen down, but the outline of the vaulted roof is distinctly marked against the top of the back wall".[2]

The origin of the impressive *liwan* arch in Indo-Muslim architecture may be conveniently traced to Persian antecedents. Indeed, this *liwan* archway may be compared with the Taq-i-Kisra, at Ctesiphon, which is pre-Muslim. The construction of the Taq-i-Kisra, however, differs entirely from any Islamic examples for it is based upon the principle of successive receding layers of brick, producing a catenary arch.[54]

Creswell has used the term *'Pishtaq'*, meaning frontpiece in connection with the screen arch on the south side of the Court of Honour at Ukhaidir. He writes, "We have here the first example of that ubiquitous feature of later Persian architecture, the Pishtaq or frontpiece."[55] Some of the earliest existing specimens of arched screens, masking the central vaulted nave or hall are to be met with in the Takht-i-Sulaiman (A.H. 673/ A.D. 1275) the Mausoleum of Pir-i-Bakran (A.H. 703/A.D. 1303), at Linjan, near Isfahan rebuilt in A.H. 710/A.D. 1310 and Masjid-i-Jami' at Astarjan near Isfahan

(A.H. 715/A.D. 1315-16). It also appears in the Madrasa of Ulugh Beg (A.H. 838/ A.D. 1434) in Samarqand and the Musalla of Gawhar Shad in Mashhad (A.H. 808/ A.D. 1405-6).[56]

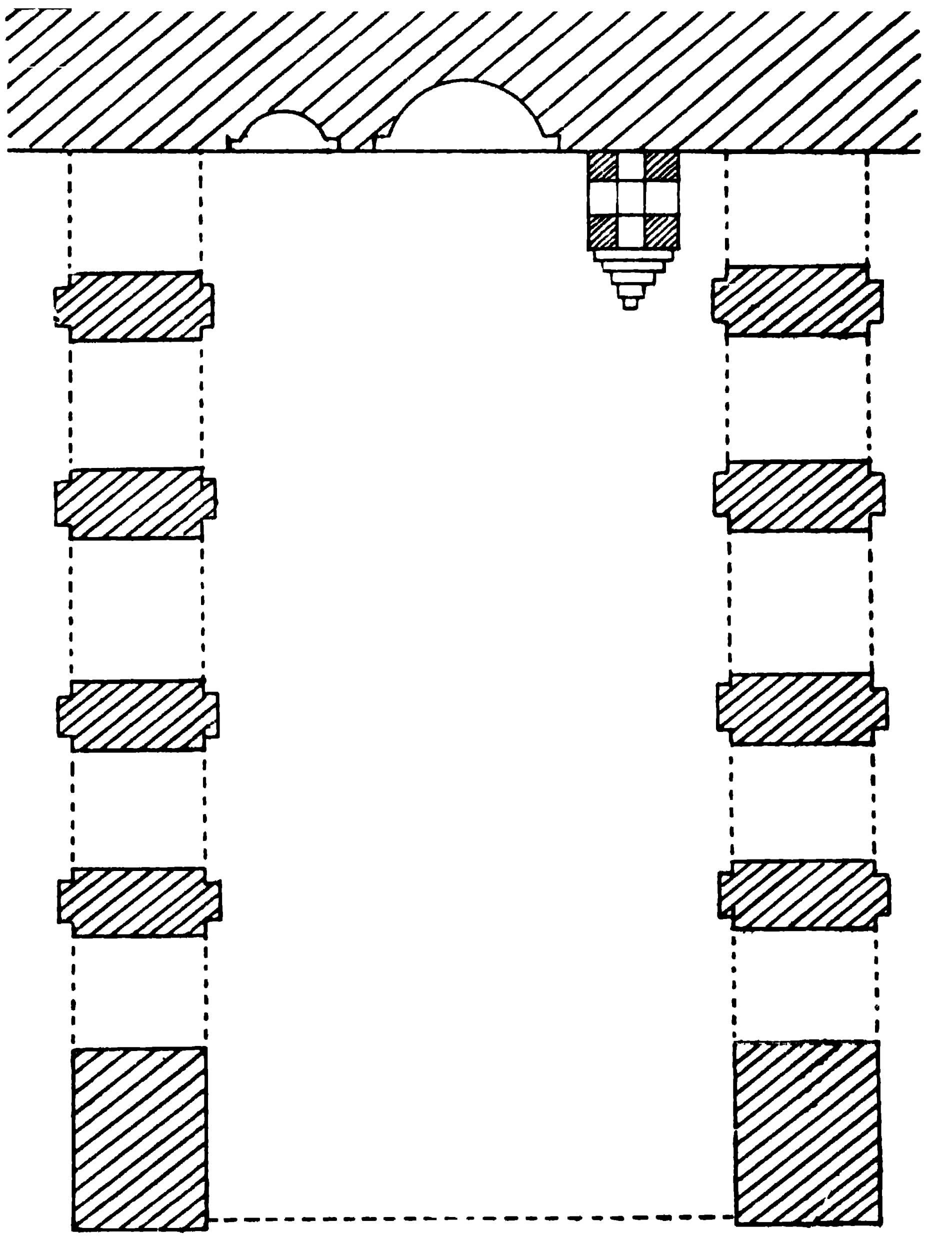


Fig. 5. Hazrat Pandua : Adina Masjid : central nave : ground plan

Notable examples of Indian counterparts of Persian arched screen in front of the central prayer-hall are to be found at the Quwwat-al-Islam Mosque, and the Arhai-din-ka-Jhopra.[57] Indeed, as Brown puts it, 'In its Indian form it was derived from the arcaded fronts of the brick-built mosques of the Persians, but these builders of the Caliphate had themselves drawn their inspiration from such structures as those at Ukaider and Samarra of the eighth and ninth centuries A.D. now crumbling into dust. In their turn the Arabs borrowed the arched motif from the vaulted palace at Ctesiphon, the

pride of the Sasanian kings of the third century, who again had acquired it from the palace of the Parthians at Hatra—built near Mosul in the second century A.D." [58]

The Persian type of arched screen appears not only in Delhi and Ajmer but also in the buildings of Firuz Shah Tughlaq and the monuments of Jaunpur. These served as the prototypes of the lofty arched facade, often referred to as *maqsura* found in the Jami' Masjid at Badaun (A.H. 607-33/A.D. 1211-36), the Jami' Masjid at Cambay (A.H. 725/A.D. 1325) and the Begumpuri Masjid at Delhi (c. A.H. 772/A.D. 1370).[57] The process of integrating the arched screen with the *liwan* started in the Begumpuri Masjid and was perfected in the Atala Devi Masjid and the Jhanjri Masjid at Jaunpur. As Marshall puts it, "The idea of giving increased height and importance to the prayer chamber by throwing an arched screen across its facade had been, as we have already seen, initiated, three centuries before, in the Quwwat-ul-Islam Mosque at Delhi, and since then had frequently found favour and been repeated in various forms. It was left, however, for the architect of the Atala Masjid to make of the screen a feature so massive and imposing as to overshadow all else in the quadrangle. This he did by devising the screen in the form of a gigantic propylon, uncommonly like the propylons of ancient Egyptian temples, set in front of the central *liwan* of the prayer chamber and sufficiently lofty (75 feet) to hide from view the great dome behind it. The propylon consisted of two square and battering minarets with an immense arch between, the whole relieved by tier upon tier of smaller arched recesses or trellised windows".[50]

Following the Persian type of arched screen, as reworked in Indo-Muslim monuments in general and the Jaunpur mosques in particular, which date from the 15th century A.D., it seems quite probable that the Adina Masjid had a *liwan* arched facade, adorned with blind arches, supported on either side by rectilinear towers, placed to the right and the left of the central *liwan* arch, with tiers of smaller arched recesses.[59]

The Adina screen (Pl. II) does not imitate the inclination or batter of the Begumpuri mosque, built by Firuz Shah Tughlaq, which became one of the most distinguishing features of Jaunpur Architecture.[60] The Adina screen has not the triple-arched entrance to the central vaulted hall, as observed in the Mosque of Damascus, the Begumpuri Masjid at Delhi and the Atala Devi Masjid at Jaunpur.[61]

The most conspicuous feature of the Adina Masjid, is, therefore, the central oblong hall or nave, with its great arched opening, leading to the central *mihrab*. The remains of the roofing prove that the nave was vaulted (Figs. 5, 6 & Pl. II), the contour of the vault being determined by the pointed *liwan* arch. This vault was carried by two flanking massive walls, 14 feet 1 inch in thickness. They are pierced by five pointed arches, springing from four rectangular brick piers, oblong in plan, their wider sides transverse to the nave wall. These rectangular piers are strengthened by central rectangular attached pilasters from the top of which runs a stone string-course along each side of the nave. The pilasters of the nave piers facing the prayer halls on either side form the base for the springing of the arches.[62]

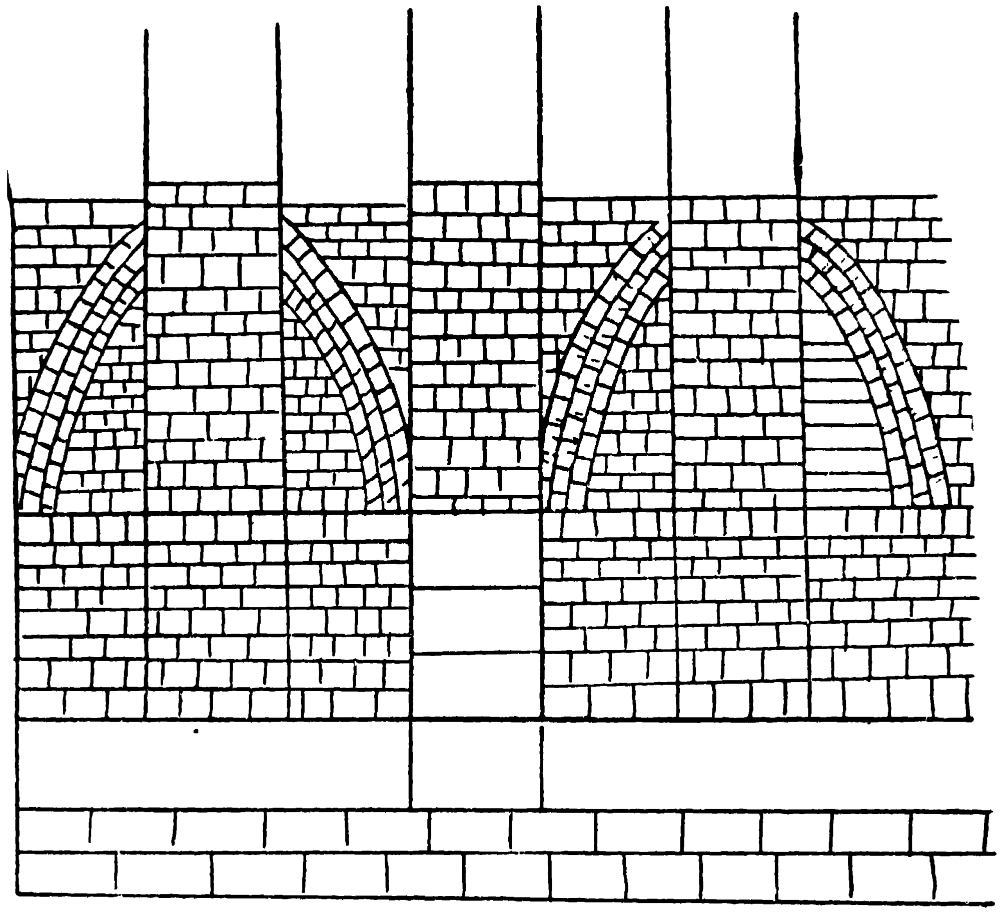


Fig. 6. Hazrat Pandua : Adina Masjid : central nave, side walls with remains of brick projecting ribs

The vault over the nave of the Adina Masjid is probably one of the earliest attempted in Indo-Muslim architecture and as such it undoubtedly demonstrates the skill and ingenuity of the Bengali architects.[63] Whatever may be the source of their inspiration the brick pointed vault is integrally connected with the towering *liwan* arch. Beglar asserts that the arch was built without centering. This is unlikely. In any case, these arches are voussoired, the necessary thrust of the vault being carried by five superimposed blind arches, placed directly upon the arches of the piers below. These transverse pointed arches are formed by five courses of small red bricks. Traces of overhanging brick ribs are still extant above the northern wall of the nave, as may be seen in Fig. 6. Presumably there were 9 such ribs, 5 of which rose like pilasters through the crown of the blind arches and the rest are placed above the stone pilasters between the nave arches.[64] Two horizontal string-courses of stone intervene above which there is a wide band of incised brick ornamentation.

The bricks of the vault are laid flat, except for those of the superimposed arches, which are placed on edges. From the remains of the ribs, it is evident that the tunnel vault was carried by brick transverse arches. In spite of the ribs and superimposed arches,

the vault of the Adina Masjid has long since disappeared. Beglar suggests that the reasons for the collapse of the vault are the decomposition of wooden wall plates and the destruction of the pilasters which supported the ribs of the vault. The want of proper bonding between the brick work and the stone facing, as well as damp climate, luxurious vegetations and earthquakes all contributed to the destruction of the building.[31] Beglar says that the mortar used was clay with some lime.

Beglar thought it necessary to set out an explanation of the presence of ribbed vaulting in the Adina Masjid. His English is obscure, but his passage is given as being the only description of the Adina Masjid vault hitherto available. He says, "the vault, however, was by no means a plain sheet vaulting......the vault sheeting was strengthened at frequent intervals by projecting arched ribs of the same shape these arched ribs appear to have projected inwards about 8 inches, (there is not sufficient material available to fix with absolute accuracy the exact number of inches...). The ribs appear to me to have been of stone, not only because a number of large stones which would suit the ribs, were actually found among the debris on the floor of the vault, and must have fallen from the vault, the sheeting of which was wholly of brick, but because in support of this, the only rational explanation of their presence in the debris of the vault, there is the further circumstance, that the marks still existing on the portion of the vault, the possibility of doubt, that the extrados of these ribs extend beyond the intrados of the brick sheet vaulting by as much as 4 inches as they have in every instances where they occured left distinct depressed sharply defined channels and in no single instance is any single portion of these channels interrupted by projecting adhering fragments of brick work, which had the ribs been of bricks would have unavoidably been left in some one or more portions, even if the existing brickwork of the vault, had not shewn that had the ribs been of brick they would have been carefully bonded into the superimposed vault sheeting, and therefore would not, and could not, have left the clear, sharply defined depressed channels, which now exist and were for a long time a puzzle to me".[31]

Beglar's lengthy arguments do not sound very convincing firstly, since the nave and the *mihrab* wall are faced with stone, it is indeed, far-fetched to assume that all large cut-stones found in the debris formed part of the ribs alone, secondly, "depressed sharply defined channels", which, Beglar says, are the remains of stone ribs, are in fact, the remains of the horizontal string-course of ashlar masonry surmounted by two courses of decoration in stone.

The collapse of the vault has rendered the task of determining the method of building almost impossible. Nevertheless, some sort of scaffolding and shuttering must have been used for the construction of the vault. Beglar describes the wooden wall plate from which it rose as follows : "Broken and dismantled though it is, enough of the lowest portions of the vault remain to shew, that it sprang from a rectangular beam about 12 × 10 inches laid in a channel in the masonry in which it was imbedded. The wood has decayed and disappeared long ago, but the empty channel near the springing

(within places a crumbling woody powder now in it) as well as the hole into which the beam end was inserted in the inner face of the West wall of the nave still exists".[31]

Experimental in conception as well as in execution, the imposing pointed tunnel vault of the oblong nave of the Adina Masjid is one of the earliest surviving examples in India. It is indeed, very rare in pre-Mughal architecture, though the Langar ki Masjid at Gulbarga is another example.

Of all the structural devices to cover wide spaces, the vault is perhaps the most ingenious. Employed in Egypt and Mesopotamia as early as the second and third millenium B.C., vaulting was greatly developed by the skilled Persian builders. Reuther says, "The barrel vault must certainly be of Babylonian origin, for as numerous examples found in the excavations show, it was used there from a very early date to cover graves and canals, and it can also be seen in the round arches of the portals of the temples, palaces, town gates".[54] There is little doubt that ribbed pointed vaults were a Persian invention, though in India a limitation of scaffolding restricted its use.

It is clear that the vaulted nave of the Adina Masjid has its counterparts in the early Muslim building. Tunnel vaults as well as ribbed vaults are demonstrated by the monuments, cited below :

Date	Provenance	Monument	Type
A.D.			
707-9	... Qusayr al-Hallabat	... Mosque	... Masonry tunnel vault
712-15	... Qusayr 'Amra	... Audience Hall in the Bath	... Cross, tunnel and ribbed masonry vault
725-30	... Hammam as-Sarkh	... Bath rooms	... Cross and tunnel masonry vault
728-29	... Qasr al-Hair	... Palace and Mosque	... Brick tunnel vault
744	... Mshatta	... Palace	... Brick tunnel vault
744	... Qasr at-Tuba	... Palace	... Brick tunnel vault
762-63	... Baghdad	... The Round City of al-Mansur, Taqat between the main wall and the inner wall	... Brick transverse vault
772	... Raqqa	... The Baghdad Gate	... Brick tunnel vault
778	... Ukhaidir	... Palace	... Brick tunnel vault
778	... Atsan	Palace	... Brick tunnel vault
789	Ramla	... Cistern	... Rubble tunnel vault on transverse arches
821-22	... Ribat of Susa	... Mosque and palace	... Masonry tunnel vault on transverse arches
836	Samarra ...	... Jausaq al-Khaqani	... Brick tunnel vault
836-49	Susa ...	... The Mosque of Bu Fatata	Masonry tunnel vault
850-51	Susa ...	... The Great Mosque	... Masonry tunnel vault
862	Samarra ...	... Qubbat as-Sulaibiya	... Masonry tunnel vault
Before 876	Basatin ...	... The Aqueduct	... Tunnel vault

Date	Provenance	Monument	Type
A.D.			
Persian examples earlier than the Adina Masjid are :			
750-86	Damghan	Tarik Khana (Masjid) ...	Mud brick tunnel vault, elliptical
9th cent.	Kaj	Mosque ...	Brick tunnel vault
973-4	Nayin	Mosque ...	Brick tunnel vault, pointed
1158-60	Ardistan	Mosque ...	Ivan tunnel vault
11th century	Isfahan ...	Mosque ...	Ribbed tunnel vault
1121-22	Marv	Tomb of Sanjar ...	Ribbed tunnel vault
1135-36	Zawara	Mosque ...	Brick tunnel vault
1304	Natanz	Mosque ...	Brick vault
1299-1312	Linjan near Isfahan ...	Mausoleum of Pir-i-Bakran	Brick ribbed tunnel vault
1308	Ashtarjan	Mosque ...	Stalactite and pointed brick vault, both tunnel and cross
1310-20	Tabriz	Mosque ...	Tunnel vault
Early 14th century	Baghdad	Khan Ortma	Ribbed tunnel vault
1320 ...	Farumad	Mosque ...	Vaulted Ivan
1322 ...	Varamin	Mosque ...	Vaulted Ivan
1324-65 ...	Yazd	Mosque ...	Vaulted Ivan
1324-65 ...	Kirman	Mosque ...	Stalactite vaulting in the portal

Indian examples of the ribbed tunnel vault include the Langar-ki-Masjid dating from the middle of the 14th century and the Jami' Masjid of Gulbarga dated A.H. 769/A.D. 1367, which are practically contemporary with the Adina Masjid, and the following three later examples ; namely, the Gunmant Masjid at Gaud (A.H. 889/A.D. 1484) (Fig. 12), the Katra or the caravanserai at Old Malda (A.H. 974/A.D. 1596) and the passage between the Naubat Khana and the Lahore Gate (A.H. 1068/A.D. 1658) at Delhi.

Tracing the origin of the transverse arches of the tunnel vault, Creswell points to the Nabataean monuments in the Hauran (1st century A.D.), where because of the absence of wood, masonry arcades formed the chief medium of architectural expression. However, the transition from flat stone roofing on transverse arches to the tunnel vault on a series of evenly placed ribs, is attained in the Parthian Palace of Hatra (2nd century A.D.).[65] The Sasanian Persians are credited with the integration of the barrel catenary vault with the transverse entrance arch as found in Taq-i-Iwan at Khark founded by Shahpur II (d. 379), but the catenary arch was not widely used in Islamic architecture, the example at the Tarik Khana at Damghan being the only example, stated above. On the other hand, the practice of roofing by parallel vaults, resting on transverse arches

which spring from very low pilasters, is demonstrated in the Qusayr al-Hallabat, the Qasr-i-Kharana, Qusayr 'Amra and Hammam as-Sarkh, as listed above. Unlike the parallel vaulting system observed in these Umayyad monuments, the 'Abbasid palace of Ukhaidir marks a definite departure, the creation of a continuous tunnel vault carried on cross arches. Another earlier striking example of this method also occurs in the Cistern of Ramla.

Among the earliest surviving examples of ribbed tunnel vaults in Islamic architecture in Persia are the mosque of Isfahan dated in the 11th century and the tomb of Sanjar at Marv (A.D. 1121-22). In the Il-Khanid period, Ivan of the Mosque at Natanz, the ivan below the shaking minarets at Garladan and, also, those in the Madrasa Imami at Isfahan and in the Pir-i-Bakran Mausoleum at Linjan near Isfahan all have ribbed vaulting of the kind observed in the early Persian monuments. In the development of the Persian type of vaulted ivan, the Jami' Masjid at Tabriz (c.A.D. 1310-20) plays a leading role.[66] It surpasses the Taq-i-Kisra at Ctesiphon in dimensions, measuring 80 feet in height and 100 feet in span. Upham Pope says : "This is the largest brick vault ever built, exceeding the widest medieval cathedrals in Europe that of the Cathedral of Gerona, by more than 25 feet (7°6m) and even surpassing the span of the Taq-i-Kisra by 16 feet (4°8 m)".[66] The vaulted nave with a central niche and a *mihrab* buttress of the Tabriz mosque resembles the Adina Masjid, which also has its *mihrab* niche constructed in an external buttress.

In conclusion, it may be said that the tunnel vaulted nave of the Adina Masjid is a striking innovation in Indo-Muslim architecture. It was obviously inspired by early Islamic and Persian antecedents, as discussed above. That the Persian influence was overwhelming is proved not only by the vault, but also by the five blind arches on either side of the nave which have ribs running up to their crown, forming a sort of "tripod" (Upham Pope), probably modelled after those in the arched squinches of the Tomb of Isma'il the Samanid at Bukhara, as referred to by Upham Pope.[66]

The tunnel vault carried on transverse arches is, of course, a feature of European Christian architecture. Fergusson in describing the Churches of Auvergny says, "the side aisles are always covered by intersecting vaults, but that of the nave is always a simple tunnel vault as in the Southern styles, ornamented by occasional transverse ribs, and in the Church at Issoire slightly pointed.[67] Fergusson, writing of the Southern Church of Fontifroide, points out that it has "a plain tunnel-vault unbroken by any intersection throughout the whole length of the nave."[67]

This does not seem to have been attempted in Islamic architecture. However, in the Langar-ki-Masjid and the Jami'Masjid at Gulbarga,the central nave is roofed by a series of transverse barrel vaults, i.e.,the nave is spanned by a series of arches from which spring transverse barrel vaults. This construction is found at the famous Abbey of Tournus in Burgundy. Fergusson writes, "The nave is separated from the aisles by plain cylindrical columns without bases, the capitals of which are joined by circular arches at the height of the vaults of the aisle. From the capitals rise dwarf columns suppor-

ting arches thrown across the nave. From one of these arches to the other is thrown a tunnel vault, which thus runs the cross way of the building ; being, in fact, a series of arches like those of a bridge extending the whole length of the nave. This is, I believe, the only known instance of this arrangement, and is interesting as contrasting with the longitudinal tunnel vaults so common both in this province and the south".[67] Tournus is usually dated early eleventh century A.D. The Jami' Masjid at Gulbarga (A.H.768/A.D.1367) and the Langar-ki-Masjid which are approximately dated from the 14th century do represent vaulted architectural traditions.

The sumptuously carved central *mihrab* (Fig.5 & Pl.III) of fine-grained black basalt is a unique specimen of the stone carvers' art. Francklin regards it as "beautifully sculptured in black marble and adorned with a profusion of flowers cut in the marble".[18] The black stone used in the central *mihrab* is a basalt and not marble. It takes high polish, giving it a superb effect as the central object or the vaulted nave. The *mihrab* niche is framed by a recessed cinquefoil arch. It is enclosed by an elegantly designed trefoil arch supported on two ornate monolithic attached columns. Beglar suggests that the *mihrab* of the Adina Masjid was transferred from a Hindu temple. He says. "Of the Hindu sculpture, the most striking and superb is beyond question the trefoil arch and pillars of the main prayer niche".[68] But there are no grounds for his assertion. The Adina Masjid *mihrab*, forming a single work of art, must be accepted as contemporary with the fabric of the Masjid itself. But it must be admitted that the style is local. As at Old Delhi, the skill of Hindu craftsmen seems to have been enlisted in the carvings of the central *mihrab*. The main trefoil arch of the *mihrab* of the Adina Masjid is derived from the *mihrab* arches below the pulpit of the Mosque of Chhoto Pandua, dated c. 1300 as well as in the Mosque of 'Umariyya in Mosul and in an earlier example in the Dome of the Rock, known as Solomon's *mihrab*.

Particular attention has been drawn to the curiously interesting designs of the archivolt of the niche. The conventional grotesque Lion's head at the crown and the *Kinnara* and *Kinnari* at the haunches, which appear in the lintel of the Vaishnava temple from Gaud, according to many scholars have been transformed into graceful foliage, palmette and sensuous tendrils.[31] The predominant motifs of ornamentation in the central *mihrab* wall are interlocking designs, decorative frieze, lotus medallions, triangular tympana (Pls. II, III) and Arabic inscription forming Sura IX, Verses 18 &19. (Fig. 8)

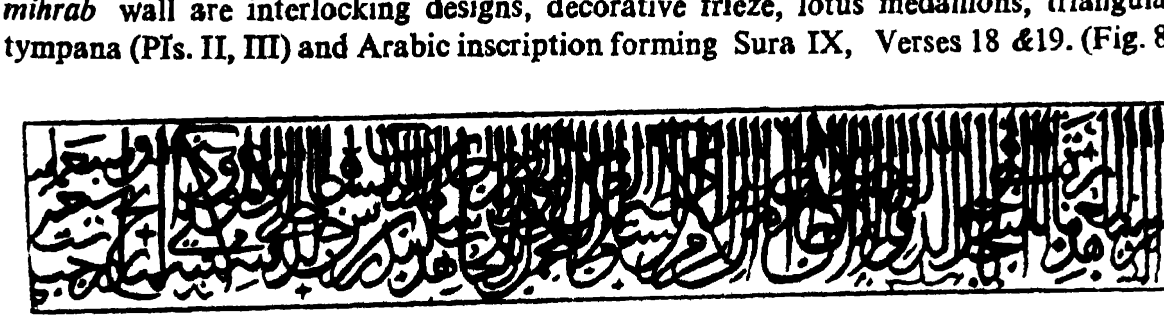


Fig. 7. Hazrat Pandua : Adina Masjid : The foundation inscription at the rear wall behind the central *mihrab*

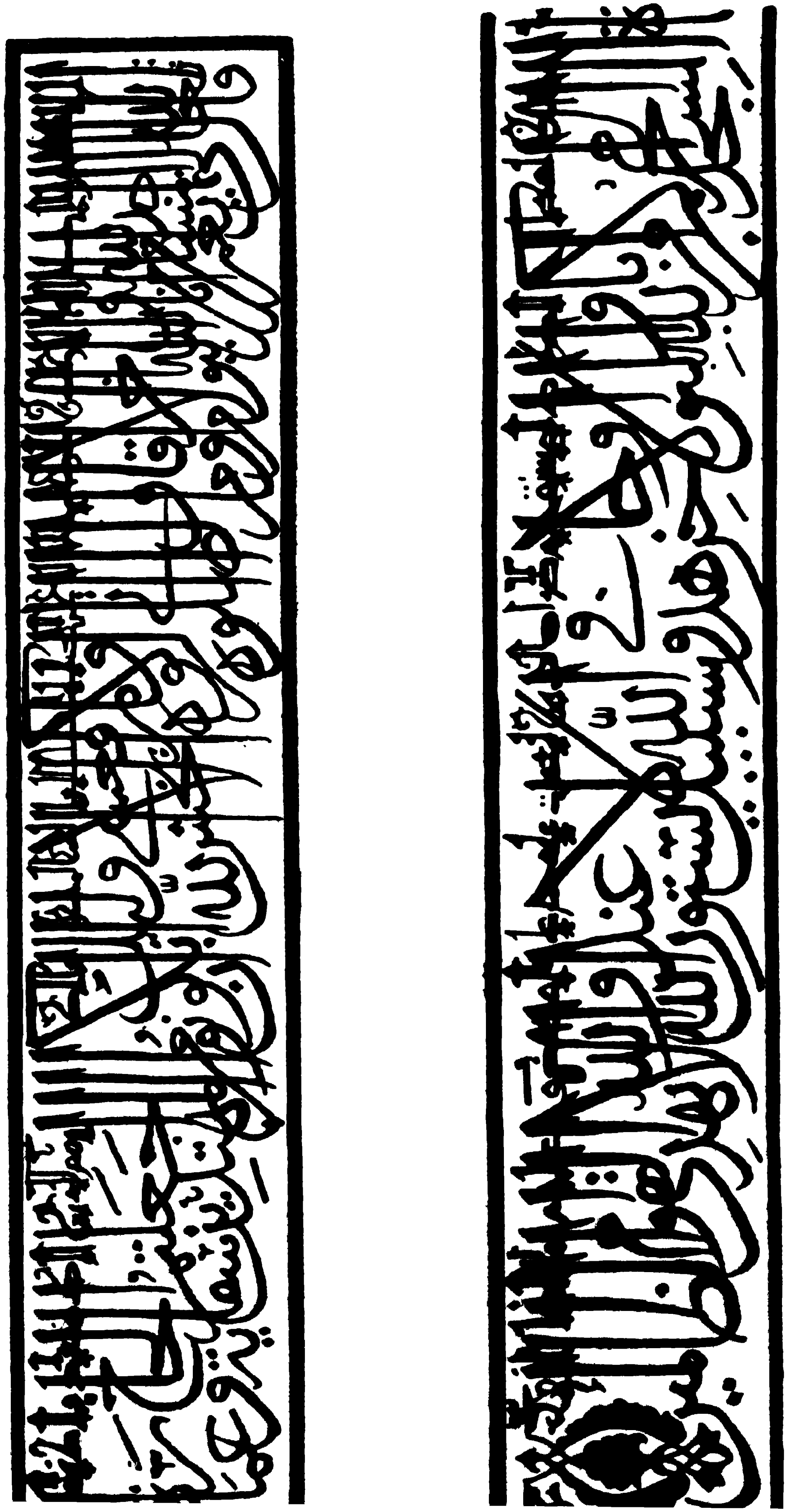


Fig. 8. Hazrat Pandua : Adina Masjid : The central mihrab wall : Inscription above the niche

In the same way, the concave *mihrab*, semi-circular in outline, of the Adina Masjid (Pl. III) corresponds with many earlier niches found in mosques throughout the Islamic world. Its origin has been traced by eminent scholars to the Mosque of the Prophet at Madina, rebuilt by 'Umar ibn 'Abd al-Aziz, the Governor of the Hijaz under Caliph al-Walid I in A.D. 706-7. But strikingly similar examples appear in the following monuments of Islam.

Date	Provenance	Monument
A.D.		
706-7	... Madina ...	... Mosque of the Prophet, rebuilt by 'Umar ibn 'Abd-al Aziz
705-15	... Damascus ...	... The great Mosque of al-Walid I known as "the Mihrab of the Companions of the Prophet"
705-15	... 'Umm al-Walid	... Mosque built in the reign of al-Walid
705-14	... Khan al-Zabid ...	... Mosque built in the reign of al-Walid
705-15	... Palace of Khirbat al-Minya	... Mosque by Walid I
707-9	... Qusayr al-Hallabat	... Mosque
715-16	... Jerusalem ...	... Mosque of Aqsa reconstructed by al-Walid
717-20	... Ramla ...	... Mihrab called Jami' al-Abyad
724-43	... Khirbat al-Mafjar	... Mosque of Hisham
728-29	... Qasr al-Hair ...	... Mosque
743-44	... Mshatta ...	... Apsidal recesses which are not really *mihrabs*
743-44	... Qasr al-Tuba ...	.. Shapeless niches which according to Creswell may well have been intended for *mihrabs*
744-45	... Harran ...	... Mosque
762-63	... Baghdad ...	... Mosque of al-Mansur, the Khassaki *mihrab*
766-67		
772-74	... Qairawan ...	... Mosque
838-41	... Susa ...	... Mosque
849-59	... Samarra ...	... Palace of Balkuwara
850-51	... Susa ...	... Great Mosque
876-79	... Cairo ...	... Ibn Tulun's Mosque
970-72	Cairo ...	Mosque of al-Azhar
1085	... Cairo ...	*Mihrab* of Zawiyat al-Juyushi

As against these long series of concave *mihrabs* flat rectangular *mihrabs* did dominate the early mosques of Persia, such as those at the Tarik Khana at Damghan, the Jami' Masjid at Nayin and the Masjid- i- Sang at Darab, etc. However, concave *mihrabs* do exist in Persia, for instance the superbly executed stucco *mihrab* of the Masjid-i-Jami,' at Rizai'ya (A.D.1277), which is formed by a trefoil arch set in an immense rectangular frame and ornamented with rich stucco encrustation. Other examples of the semi-circular *mihrab* are to be seen in the Masjid-i-Jami' of Ali Shah at Tabriz (A. D. 1310-20), Gunbad-i-Alayivan at Hamadan (A.D.1315), the Jami' Masjid at Varamin and the Masjid-i-Jami' at Marand.[66]

It may not be out of place to mention that flat rectangular *mihrabs* occur in a number of early Indian mosques, namely the Quwwat al-Islam Mosque at Delhi, the Tomb of Iletmish at Delhi, the "Jama'at Khana" Masjid at the Dargah of Nizamuddin Aulia, the tomb Sultan Ghari as well as the Jaunpur mosques. The earliest notable example of a concave semi-circular *mihrab* in Indian mosques is in the Arhai din-ka-Jhopra at Ajmer. It is also found at the Mosque of Zafar Khan Ghazi at Tribeni and the Chhoto Pandua Mosque in Hughli.

Beglar's description of the pulpit (*minbar*) (Pl.II) is somewhat obscure : "of the other portions, obviously designed for stone, the most prominent and important, as well as graceful object, is the pulpit; the proportions of its parts are too slender to be suited for brick work, it bears little internal or external stress and strain, has stood fairly well, and but for the falling in of the vault, whose fall destroyed the roof and the handrail, and injured some other parts, it might have stood a thing of beauty, for an indefinite period."[31]

It is a double-storied structure, placed against the western wall, north of the central *mihrab*. The lower part has two arched openings on either side ornamented with a fringe of spear-heads which are repeated on the upper part. This is supported by four square piers, carrying pointed arches on three sides : the fourth which is attached to the western walls filled by a flat richly carved *mihrab* with the hanging chain and lamp motif, which is common in India.[2] The design in the *minbar* has exactly the same kind of workmanship as the central *mihrab*.

So far as the remains of the pendentives and the roof slabs allow us to hazard a reconstruction, it may be reasonably assumed that the pulpit was roofed over by a hemispherical cupola, probably resembling those of the prayer halls. Its destruction was probably caused by the fall of the vault.

The existence of octagonal sockets with elongated grooves in the two front pillars can be explained only by the fact that the staircase had balustrades, which have disappeared. This view gains further support by the discovery of small tenons on either side in the steps of the staircase. Obviously, these fitted into corresponding mortices in the balustrades.[31] The pulpit staircase is built of large slabs of black basalt, placed one upon the other.

The discovery of an odd fragment of Hindu sculpture found built into the steps of the staircase has led many scholars to ascribe a pre-Muslim origin to the Adina Masjid. As Cunningham puts it, "The steps leading up to the pulpit have fallen down, and, on turning over one of the steps I found a line of Hindu sculpture of very fine and bold execution. This stone is 4 feet in length and apparently formed part of a frieze. The main ornament is a line of circular panels 7¼ inches in diameter, formed by continuous intersecting lotus stalks. There are five complete panels, and two half-panels which have been cut through. These two contain portions of an elephant and a rhinoceros. In the complete panels are (i) cow and a calf; (ii) human figures broken; (iii) a goose (iv) a man and woman and a crocodile; (v) two elephants. The carving is deep

and the whole has been polished".[69] This sculpture is still visible. It is, therefore, clear that the exigencies of the circumstances led to the utilization of some Hindu materials available on the site. Nevertheless, such mutilated fragments hardly testify to the fact that the Adina Masjid was built on the ruins of an ancient Indian temple.

It is interesting to note that in construction as well as in its balustrades and canopied platform, the Adina pulpit corresponds unmistakably with the *minbar* of the Masjid of Chhoto Pandua in the District of Hughli (c. A.D. 1300). A later example of the similar type of *minbar* is also found in the Jami' Masjid at Mandu (A.D. 1440).

The spearhead fringe in the soffit of the arches of the pulpit is reminiscent of the similar ornamental device in other early Indo-Muslim monuments. This device is prominent in the 'Ala'i Darwaza at Delhi and the Jama'at Khana Masjid at Nizamuddin's Dargah at Delhi as well as in the Jaunpur mosques, the Ukha Masjid at Bayana and the Jami' Masjid at Mandu. It also occurs in the window panels of the Lattan Masjid, (Pl. XX) in the entrance gate of the tomb of 'Alaul Haq, and in the Chhoto Sona Masjid, all situated at Gaud.[9] (Frontispiece)

The risers of the stairs are carved with distinctive geometrical and floral patterns, recalling those in the pulpit of the Jami' Masjid at Ahmadabad. The common motifs represented in these two pulpits are balustrades containing rosettes and quatrefoil designs. When the Adina pulpit was intact, it must have been both elegant and decorative. In any case, it hardly calls for Buchanan's remark that it is "a small ill-conceived stair".[7]

To the north and south of the central vaulted hall, and communicating with it by five arches (Fig. 5 & Pl. XV), there are arcaded prayer halls. They are divided by four longitudinal rows of stone pillars into five broad aisles. Each row consists of 19 pointed brick arches carried on 18 stone pillars. All the pillars, excepting those supporting the zennna gallery to be described later, are slender and well-proportioned. Facing the courtyard, there are 14 rectangular brick piers on each side of the nave (Pls. I, X, XI,XV), carrying 15 two-centred pointed arches of 8 feet span. The lower portions of these are cased with ashlar masonry and form an impressive facade. The voussoired arches of the *liwan* facade recall similar features in Islamic monuments in 'Iraq and Persia, such as the blind arches of the Baghdad Gate of Raqqa, the eastern gate of the Palace at Ukhaidir and the Jausaq al-Khaqani, known as Bab al-'Amma at Samarra. The Masjid-i-Jami' at Varamin provides one of the most interesting Persian examples of this feature. Its Indian counterparts are to be seen in the 'Ala'i Darwaza both in the entrance archway as well as in the receeding arches of the squinch and in the mosque at Cambay, in the Tomb of Fir uz Shah Tughlaq at Delhi.

The western wall of the northern prayer hall is pierced by two openings on either side of the zenana gallery, which reduce the number of niches (Fig. 3) between the pilaster of the back walls from the 16 found in the southern prayer hall to 14. These postern gateways (Figs. 3, 9, & Pls. IV, V), are built out of elements of Hindu door frames and, therefore, are unusual features, rarely found in Indian Mosques.[31] It is hard to

believe that they were provided for the use of the general worshippers. Probably they were for the use of the attendants, palanquin-bearers and entourage of the King and his Ladies, who entered the Mosque through the adjoining Ladies' vestibule (Fig. 9).

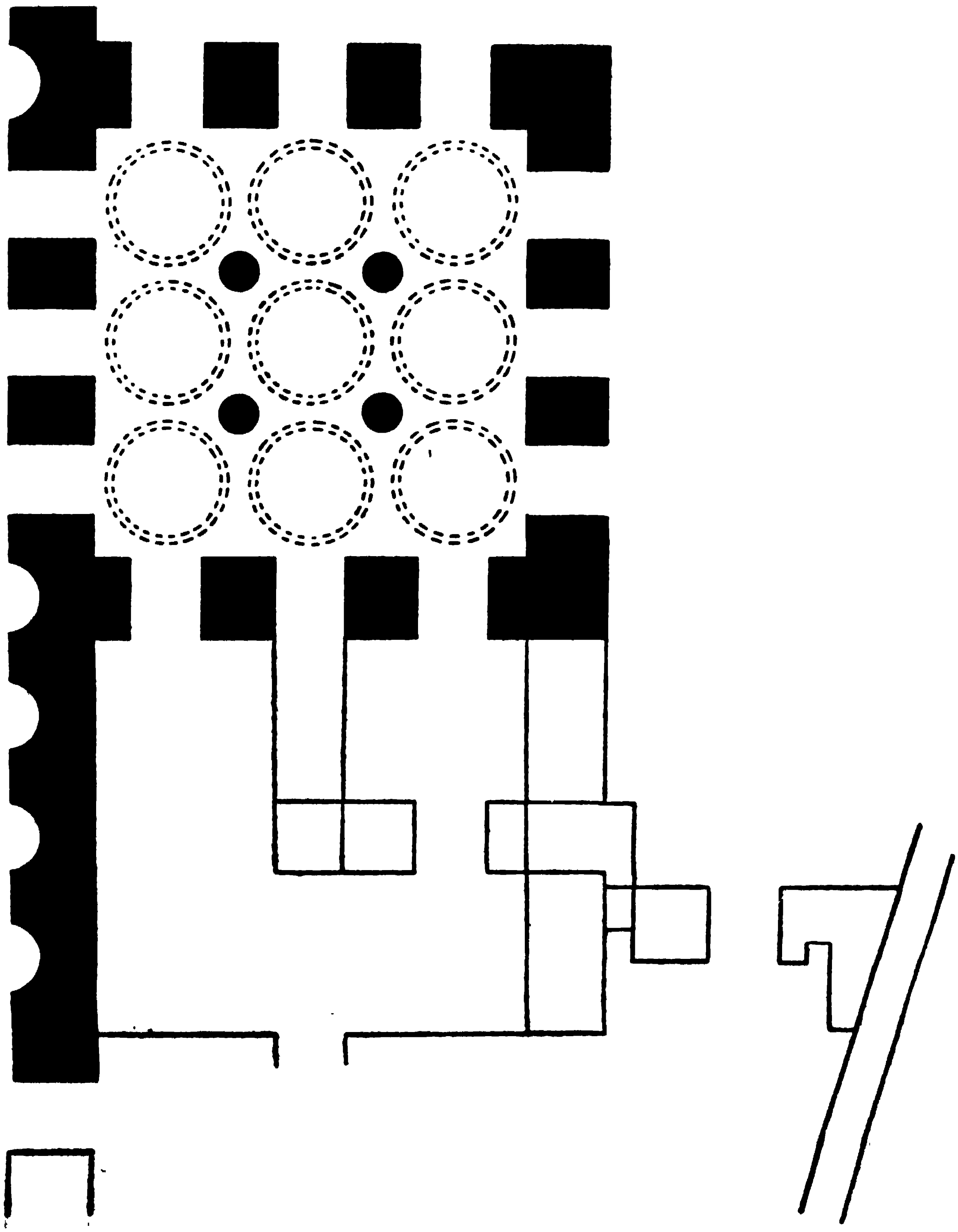


Fig. 9. Hazrat Pandua : Adina Masjid : ground plan of the annexe

The niches below the pilasters of the western wall of the two prayer halls are filled by concave semi-circular *mihrabs*. These are all of identical workmanship, (Pl. X) and must be contemporary. However, there is one exception shown in the northern hall, which differs from the other semi-circular niches. Here the trefoil arch corresponds generally with that of the central *mihrabs*. The arch itself has a superimposed ribbed roof, recalling Hindu architecture. The face of the trefoil is decorated with a lotus and diamond band, the pilasters on either side having *kumbha* bases and looped garlands on their shafts. All these details are different from the rest of the decorative motifs in the Adina Masjid. But there are no grounds for the suggestion that the work is Hindu or that it is built up of fragments of a destroyed Hindu temple. The space between the pilasters of this *mihrab* and the stone-face of the brick wall is filled with fragmentary remains of Hindu sculpture.

The tympanum-like fillings of the pointed arches over the *mihrabs* in the northern prayer halls are exquisitely carved in brick displaying a variety of designs and bonding.

There are five trellis windows in the northern and southern ends of the prayer halls, corresponding with the arcading of the colonnades. There must have been trellises, though the work has been entirely destroyed. Pierced windows are found in the 'Alai' Darwaza but the use of trellis or pierced screens was not common until the 14th century, when it appears to have been carried out to a great extent as proved by the Adina Masjid screens.[34]

Ilahi Bakhsh says that there is a masonry tomb in the prayer hall near the pulpit ; this is, however, a modern interpolation.

The predominant feature of the northern prayer chamber (Pl.I) is the zenana gallery (Fig. 3). This is a structure of great architectural importance. In the monumental effect of its design, the solidity of its proportions, boldness of execution and refined elegance of workmanship (Pls. V, VI), it surpasses most mosques. According to Westmacott the Adina Masjid gallery is unique,[9] but this is not so. Zenana galleries are found in India, but they do not occur in Persia or Arabia. They are, therefore, eventually Indo-Islamic.

Francklin describes it as follows, although his placing of the gallery in the southern prayer hall is inaccurate : "In the south (north) west aisle is a raised platform of stone, 80 feet in length by 40 feet in breadth and 12 feet high . not only is the terrace of stone but the beams and arches are likewise of mafsys (massive stone) : underneath the beams are roses carved with much taste. This terrace which was entered by a door from east-wards (west-wards) was peculiarly appropriated as a place of devotion by the King, his nobility who sat apart from the multitude below in the body of the mosque".[70]

The stone floor of the zenana gallery is supported by 21 massive piers of fine-grained black basalt.[71] The piers are squat and ponderous unlike the 10 fluted columns of the

gallery. Raising the gallery 8 feet from the paved floor of the northern prayer hall, these pillars have cruciform impost blocks, like those in the Quwwat al-Islam Mosque at Delhi. Unlike the slender circular shafts of the pillars in the outer parts of the Mosque which are hollow and filled in with rubble, these heavy pillars seem to be solid. When the patience and skill spent on the work are considered, these squat pillars are of considerable grace and elegance and, therefore, hardly call for Beglar's remarks as to their "slipshod style".[31] Earlier examples of such ponderous pillars are to be seen at the Mosque of Zafar Khan at Tribeni as well as the Gunmant Masjid at Gaud, the former being earlier than the Adina Masjid, the latter later.

The zenana gallery is divided into 6 bays, running at right angles to the *qibla* wall supported by 5 rows of slender fluted pillars of a remarkable design. Fluting as an ornamental device is found in the Minar at Chhoto Pandua (c. A.D. 1300), in the corner towers of the Adina Masjid (Fig. 10), the Gumti Gate (A.D. 1512) and the Lattan Masjid (A.D. 1493-1519). (Pl. XX)

Considering the prevalence of purdah in Medieval Bengali society, it is presumed that the zenana gallery was enclosed by a perforated stone screen or "Jali". The original lattice screen of the zenana gallery must have been removed by vandals. Beglar writes : "The fact of my having actually found pieces of fish scale and quatrefoil pattern stone lattice work, in the debris just under the edges of the platform, goes to prove, even if no other traces of their use existed (and they do exist) that lattice screen certainly of the fish scale, and quaterfoil patterns, were used."[31]

It is interesting to note in this connection that 'Abid 'Ali found a perforated screen and a pair of curiously carved pillars in the Dargah of Shah Jalal at Hazrat Pandua, a little south of the Adina Masjid. He says, "in the shrine of Shah Jalal at Pandua several stone slabs can be seen in the cornice of the Chilla Khana and at the entrance to the shrine. These were probably brought from the Badshah-ka-Takht. (The zenana gallery of the Adina Masjid). There were railings on three sides of the Takht but no traces of them have been found. It is said that these railings originally belonged to a Buddhist temple".[16] But this is impossible. If the Dargah lattices ever belonged to the Adina Masjid, as 'Abid 'Ali thinks, it is clear that they are handiworks of Hindu artisans working under the supervision of a Muslim architectural overseer. Beglar admits that the screen in question conforms to the idea of a "Jali" as used by Muslims in many mosques in India. The zenana gallery is a common feature and perforated screens are indispensable for it as can be seen at Delhi, Jaunpur, Ahmadabad, Mandu and elsewhere. The existence of a lattice screen may be established by the fact that sockets at the base of the imposts placed over the outer rows of stumpy pillars are still visible.

The zenana gallery communicates with the zenana chamber (Fig. 9 & Pl. V), an adjacent square building outside the Mosque proper immediately to the west of the gallery, by two gateways pierced in the thickness of the western *qibla* wall. To the south and the north of these gateways there are also two door frames (Pl. IV) in the western wall

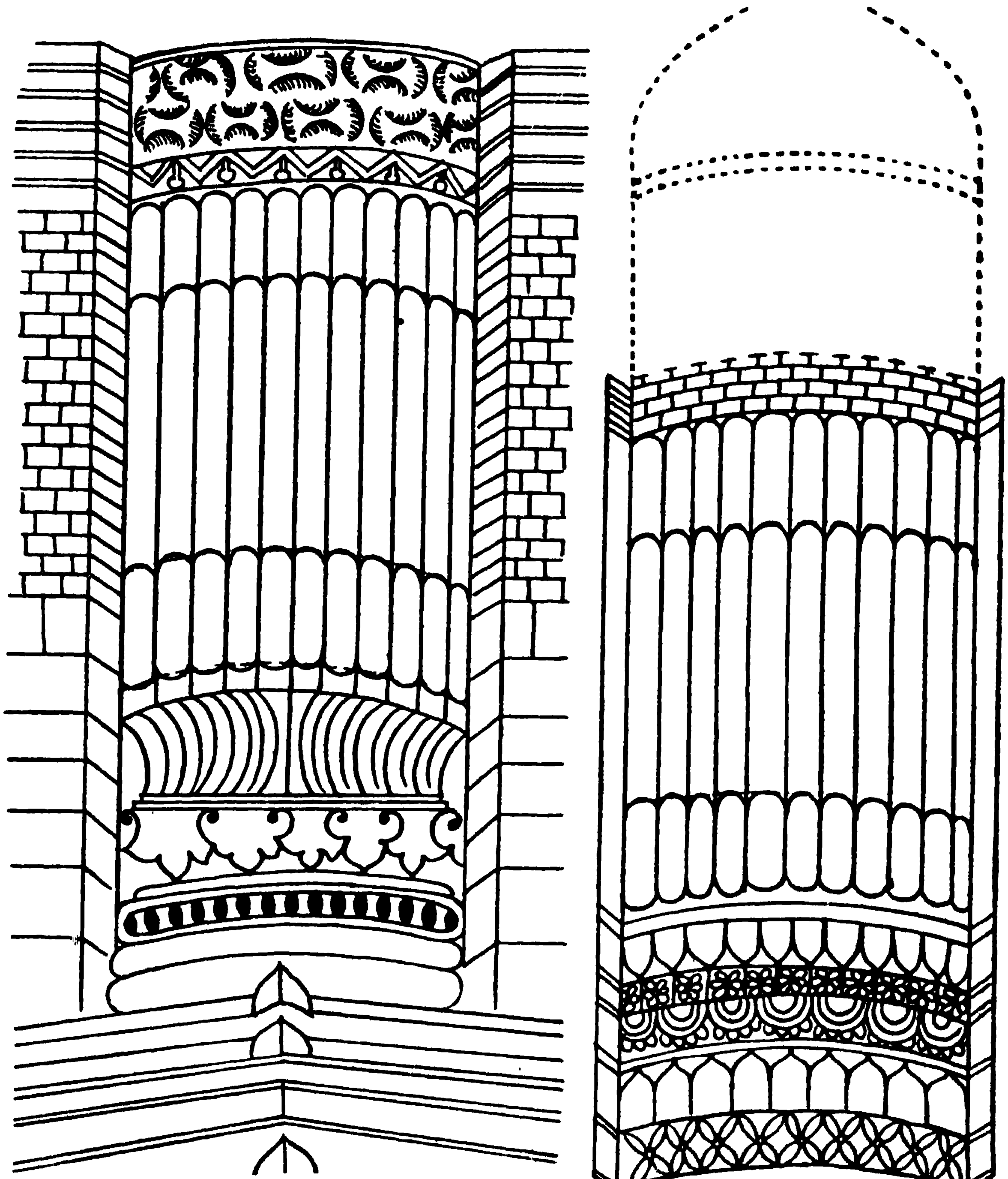


Fig. 10. Hazrat Pandua : Adina Masjid : cylindrical corner tower with flutings.

which open out to the interior of the mosque. The two postern gateways and the two doors are already mentioned.[31] Beglar pointed out that the door frames of all these four door ways are built up of fragments from some other buildings. He indentifies the work as being Hindu but admits that he does not know any local source from their fragments. The work is more or less of the same kind as that to be seen in the postern gate. In all these doorways various Indian motifs attract undivided

attention. These include pot and foliage, pilasters, door guardians and the intertwined *nagas* on the lintel. The utilization of non-Muslim materials in the Adina Masjid as well as in later Mosques in Gaud and Hazrat Pandua is supported by two fragments in the British Museum. They are cut in basalt and the first shows finely cut Muslim diaper work on one side and the figure of Buddha on the other (Pls. XLII, a—b). Another fragment has the image of probably the goddess Brahmani on the other side (Pls. XLI, a—b). The work indicates that these fragments came from Gaud or Hazrat Pandua.

The existing tomb and mosque of Zafar Khan Ghazi at Tribeni is another example of contemporary Hindu fragments being utilized in Muslim structure. The entrance gateway to the Minar at Chhoto Pandua as well as that of the Eklakhi Mausoleum at Hazrat Pandua (Pl.XVI) provide parallels for zenana gateways. The floor of the zenana gallery with its worn basalt paving slabs is supported by the squat pillars of the prayer hall below. These support bays roofed by a corbelled construction of plain slabs placed across the corners of the bays. At earlier mosques, such as the Quwwat al-Islam, internal domes constructed in this way were removed from Hindu temples. Here the old Indian method is still utilized with fresh material. Beglar's description is as usual somewhat obscure but he enters the measurements implicated which give some idea of the scale of the work.[31]

Much of these finely conceived and constructed floor has been destroyed and the basalt slab used carried away. In 1902-3 the Archaeological Survey of India restored the platform with wooden planks.[46] Although much of the zenana gallery has been ruined, it is comparatively the best preserved part of the Mosque today. This is due to the supporting ponderous stone pillars, carrying the heavy weight of the superstructure above. The pointed brick arches spring from the fluted tapering columns of the zenana gallery as well as from heavy impost blocks, resting on those stumpy pillars.

The zenana gallery is carried by brick arches springing from the heavy impost blocks of its fluted columns. These arches carry 18 brick hemispherical domes, covering the 18 bays of the gallery. The transition from the square to the circular base of these domes is achieved by stalactite pendentives of brick (Pl. VI). It is interesting that the construction should be used to the exclusion of arched squinches, though small bricks are used and these are richly carved. It is true that carved brick work of 5th century Gupta origin is to be found in India but the carved brick work of the Bengal mosques is derived indirectly from the work at the Tomb of Isma'il, the Samanid at Bukhara.

In discussing the origin of the squinch and the pendentive in early Muslim architecture, Creswell notes that the latter is earlier than the former, which is a Sasanian feature preserved in the Umayyad monuments.[72] He adds that the pendentive is a Byzantine feature developed in the Christian Syrian Churches. Triangular spherical pendentives appear in the Qusayr 'Amra and Hammam al-Sarkh. In the

Islamic Persian monuments both the squinch and the pendentive were used. In India the earliest examples of the squinch are to be found in the Tomb of Iletmish, the 'Alai' Darwaza and the Jama'at Khana Masjid at Delhi, as well as later in the Atala Devi Masjid at Jaunpur.

The characteristic brick pendentives found in the Adina Masjid are copied at the Tantipara Masjid, the Lattan Masjid, the Chhoto Sona Masjid and the Bara Sona Masjid. They are, therefore, typical of the work of the whole region.

On the west *qibla* wall of the zenana gallery four *mihrab* slabs appear filling the spaces.[73] To the south of the entrance doors one of these *mihrabs* to one side of the doors is flat and the carving with which it is embellished is of the same kind as that of the doorways. It would, therefore, seem that this *mihrab* may have been derived from an earlier building. This is not true as there can be no doubt that it was a Muslim building for the cusped arched frame enclosing a finely cut chain-and-bell motif also bears in Tughra character *Kalima Shahadat* inscribed on a stone measuring 8″×7″.

Text : لا اله الا الله محمد رسول الله ○

Translation : "There is no God but God : Muhammad is his Prophet".

The remaining 3 *mihrabs* differ entirely in design, being concave and not flat, the spandrels of their cusped arches being filled by two projecting rosette medallions. They, also, bear the hanging bell-and-chain motifs and a long inscription. The inscription in the *mihrab* to the left of the lintelled niche runs as follows :

Text :

قال الله تعالى عز من قائل و جل من متكلم ○ اعوذ بالله من الشيطان الرجيم ○
ان الله هو السميع العليم ○ بسم الله الرحمن الرحيم ○ الذين آمنوا و هاجزوا و جاهدوا
فى سبيل الله باموالهم و انفسهم اعظم درجة عند الله و اولئك هم الفائزون ○ يبشرهم
ربهم برحمة منه و رضوانا و جنات لهم فيها نعيم مقيم خالدين فيها ابدا ان الله عنده اجر عظيم ○

Translation : "Allah the Great, greater than any Sayer and nobler than any Speaker, said : 'Seek refuge with Allah from the cursed Satan. Surely Allah is He who hears most and knows best. In the name of Allah, the Clement, the Merciful. They who have believed and fled from their homes, and striken with their substance and with their persons of the path of Allah, are of the highest rank with Allah : and these are they who shall enjoy felicity. Their Lord, by His Mercy and pleasure assures Paradise to them; therein they will abide in plenty for ever and in perpetuity. Verily with Allah is great recompense". (Sura IX, verses, 20-22)

Round the rectangular frame of the zenana *mihrab* to the left of the second niche runs a broad rectangular frieze, measuring 160 inches by 15 inches. It contains a beautiful inscription in fine carving, intertwined with spiral tendrils. It runs as follows : (Pl.VIII)

Text :

لقد صدق الله رسوله الرئويا بالحق اتدخلن المسجد الحرام انشاء الله المنين محلقين
رءوسكم و مقصرين لا تخافون فعلم مالم تعلموا فجعل من دون ذلك فتحا قريباً ○ هو الذى
ارسل رسوله بالهدى و دين الحق ليظهره على الدين كله و كفى بالله شهيداً ○ محمد رسول الله
و الذين معه اشداء على الكفار رحماء بينهم تراهم ركعاً سجداً يبتغون فضلا من الله ورضواناً ○

Translation : "Now hath Allah in truth verified unto his Apostle the vision wherein He said, 'Ye surely enter the sacred Mosque (of Mecca) if Allah please, in full security, having your heads shaved and your hair cut : ye shall not bear, for Allah knoweth that which ye know not, and He hath appointed for you, besides this, a speedy Victory'. It is He, who hath sent His Apostle with 'the Guidance' and religion of truth; that He may exalt the same above every religion : and Allah is a sufficient witness hereof. Muhammad is the Apostle of Allah : and those who are with him are most vehement against unbelievers but full of tenderness among themselves. Thou mayest see them bowing down, prostrating themselves, imploring favours from Allah and His good pleasure".

The inscription cut skilfully in elegant Naskh, set in spiral floral background contains the verses from the Qur'an, namely Sura XLVIII, verses 27, 28, 29. In the middle of the rectangular frame, beneath the broad horizontal frieze runs another short inscription taken from the Qur'anic verse 56 of the Sura XXXIII. It runs as follows :

Text :

ان الله و ملائكته يصلون على النبى يا ايها الذين امنوا صلوا عليه و سلموا تسلما ○

Translation : "Verily Allah and His angels bless the Prophet. Bless ye him. O Believers, and salute him with salutations of peace".

To the south of the 3rd *mihrab* in the zenana gallery, there exists another *mihrab*. Unlike the flat *mihrab*, it is a semi-circular niche with cinquefoil arch, forming an alcove. An intricate device of chiselling displays the rich texture to the surface, often mistaken for glazed tile work. Undoubtedly the surface of the first two concave *mihrabs* and its frame is polished smooth. Both the *mihrabs* are alike in various ornamental motifs. Like the other two concave *mihrabs* in the zenana gallery, the third concave *mihrab* also contains verses of the Qur'an. exquisitely carved in black basalt. Horn says, "The intervals between the single letters and the words are always copiously ornamented with floral arabesques". Ravenshaw has incorporated this inscription but unfortunately reproduced it in reverse, creating confusion. The verse forming the inscription is taken from the *Ayat-al-Kursi* or the Throne verse of the Qur'an (Sura II, verse, 255), which is similar to the first few lines of the epigraphic record over the gate of the enclosure of 'Alaul Haqq's tomb. It runs as follows : (Pl.IX)

Text :

الله لا اله الا هو الحى القوم لا تأخذه ○ سنه و نوم له ما فى السموات و ما فى الارض من
ذا الذى يشفع عنده الا باذنه يعلم مابين ايديهم و ما خلفهم ولا يحيطون بشى من علمه الا بماشاء ○
وسع كرسيه السموات و الارض و لايوئوده ○ حفظهما و هو العلى العظيم ○

Translation : "Allah! There is no God but He! the Living, the Self-subsisting, neither slumber seizeth Him nor sleep; His is whatsoever is in the Heavens and whatsoever is in the Earth! who is

be that can intercede with Him but by His own permission? He knoweth what is present with his creatures, and what is yet to befall them; ye nought of His knowledge do they comprehend save what He willeth. His Throne reacheth over the Heavens and the Earth, and the upholding of both burdeneth Him not: and He is the High, the Great".

Prasad has described the raised platform in the northern prayer hall in the Adina Masjid as "*Takhtgah-i-sang-i-Nimazgah-i-Badshahan wa Shahzadgan*", or "stone platform of the place of worship by kings and princes".[23] The term *Badshah-ka-Takht*, used by many historians, is quite inappropriate, as it was primarily meant for the ladies of the *Harem*.[16] Beglar is quite logical in denying this term and describing it as the ladies' gallery. The existence of such a secluded platform distinct from the congregation halls, is, however, proved by similar zenana galleries in the Tantipara Masjid, the Gunmant Masjid, the Chhoto Sona Masjid and the Bara Sona Masjid (Figs. 28 & 24), all of which are situated at Gaud. Moreover, as Beglar points out, the "close proximity of a covered and screened privy"[31] to the adjoining zenana chamber as well as the existence of a sloping stone ramp in the open vestibule to the chamber indicate that they are all meant for use of the Harem ladies. (Fig. 3) Therefore, as Marshall puts it, "it was primarily built for the zenana but which is now generally called Badshah-ka-Takht."[46] Fergusson regards it as the King's Throne or Royal Gallery.[51] Nizamuddin Ahmed who states, "Khizr Khan Turk had married the daughter of Mahmud Shah III Bengali and was behaving in his 'sitting' ". B. Dey, the translator of the *Tabaqat-i-Akbari* of Nizamuddin, explains the "sitting" after *Tarikh-i-Sher Shahi* as the *Toki* or the upper place. The *Toki* is referred to the large raised platform in the Adina Masjid, where the Sultan and his entourage sat and prayed.[74] Therefore, the raised platform, primarily meant for the *purdah* observing ladies of the Royal Household, came to be also used by the King who naturally wanted segregation for probable political reasons from the congregation below in the body of the mosque. It, however, neither accomodated the *mullah* as Saraswati thinks,[75] nor the nobility, as stated by Francklin.

The concept of isolation in congregation practised by the Caliphs and his Governors of early Islam may be traced to the *maqsura* probably introduced by Mu'awiyah. But before it emerged, there was a type of square mosque with adjoining *Dar al-Imara*, placed back to back against the *qibla* wall, which persisted for more than two centuries. Remarkable examples of the combination between secular and the religious buildings are to be found not only in the earliest mosque of Islam at Madina, but also at Kufa, Basra, Fustat, Wasit, Baghdad, Samarra, Ibn Tulun, and Qairawan, etc.

Curiously enough, the zenana gallery is conspicuous by its absence in Persian Islamic architecture, presumably because Shi'ism did not discriminate between the sexes in places of public worship. Nevertheless, the ancient practice did not become obsolete as it was revived in Spain on the one hand and India on the other.

The earliest surviving examples of the zenana gallery are to seen on raised platforms to the north of the central *mihrab* in Indian mosques. As Marshall puts it, "In

the mosque of Shah 'Alam at Timurpur, there occurs the earliest example at Delhi of a ladies' gallery in the rear corner of the prayer chamber, which henceforth was to become the orthodox position for these galleries".[50] Against Marshall's contention it may be pointed out that the Quwwat al-Islam Mosque at Delhi had four entresol galleries at the four corners of the Mosque, presumably meant for the ladies of the court.

A few striking examples of the zenana gallery are to be seen in the following mosques of India :

Date	Provenance	Monuments
A.D.		
1192	Delhi	Quwwat al-Islam Mosque
14th cent.	Hisar Firuza	The Jami' Masjid
1333	Dholka	Mosque of Hilal Khan
1361	Dholka	The Tanka Masjid
1405	Dhar	The Lat Masjid
1408	Jaunpur	The Atala Devi Masjid
1411	Ahmadabad	Ahmad Shah's Mosque
1325	Khambayat (Cambay)	The Jami' Masjid
1440	Mandu	The Jami' Masjid
1453	Sarkhej	Mosque of Darya Khan
1480	Gaud	The Tantipara Masjid (Fig. 22)
16th century	Bijapur	The Mosque of Afzal Khan
1493-1519	Gaud	The Chhoto Sona Masjid (Fig. 28)
1524	Gaud	The Bara Sona Masjid (Fig. 24)
1523	Bagha, Rajshahi	The Mosque
1558	Kusumbha, Rajshahi	The Mosque

Therefore, it is no wonder that the Adina Masjid which in boldness of conception and richness of decoration surpassed all the earlier mosques of India maintains a link in many architectural features, the zenana gallery being an example.

The institution of the zenana gallery in a mosque reflects the social atmosphere of Medieval Bengal. It is a brilliant testimony to the tolerance and catholicity of the Muslim rulers towards the fair sex. As Bloch puts it, "I may mention in passing that the peculiar custom among the Muhammadans of Bengal, of allowing their wives and daughters to attend Divine Service in the Mosque, is interesting also, in so far as it affords to us an illustration of the great respect shown by them towards the weaker sex".[76]

A curiously interesting feature of the Adina Masjid is the square structure, adjoining the outer wall of the *qibla* on the northern side of the central *mihrab*. It communicates with the zenana gallery by lintelled doorways, formed by Hindu door jambs as stated earlier. According to Beglar it measures externally 54 feet by 48 feet,[31] whereas 'Abid 'Ali notes that this roofless annexe is 42 feet square. It stands on a very

high plinth, raising the floor to the level of the ladies' gallery.[71] The plinth is built of random rubble work with conventionalised Buddhist railing ornament resembling those in the dadoes of the *qibla* wall of the mosque.

The square annexe (Fig. 9) with walls 6 feet 8 inches thick was probably roofed over by domes, as the remains of four square stone bases of pillars, two in two rows, supporting the domes on arches, as well as the pilasters in the *qibla* wall, are still visible.[2] These pillars are circular in shape, from which spring transverse and longitudinal arches. These arches carry 9 domes probably by the similar brick stalactite pendentives observed inside the mosque.[78] In other words, the space inside the annexe is divided into 9 small squares, each surmounted by a small hemispherical dome, similar to those in the mosque proper.

According to Cunningham, the three openings on the northern and the southern sides were originally trellis windows, as the floor of the tomb is on the same level as the zenana gallery in the mosque. In the plan shown in Fig. 9 the central lintelled doorway in the northern wall of the annexe provides an entrance to another adjoining chamber or platform, presumably of the same size, as attested by Buchanan.[7] Beglar regards the platform to the north of the annexe as an open vestibule, with a sloping stone ramp suitable for allowing Dulis and Palkis, carrying ladies of the Harem to the annexe and finally to the ladies gallery.[31]

The lack of evidence, historical as well as architectural leaves the identification of the annexe an open question. Although contemporary authors, namely Francklin and Prasad, have not said anything on this point, Buchanan considers this annexe to be the Tomb of the builder, Sikandar Shah. He writes, "the grave is in the centre, and is without ornament. It is composed of brick and covered with an arch".[7] Both Ravenshaw and Westmacott believe that Sikandar Shah intended part of the great Adina Masjid to form a final resting place for himself.[9] Fergusson likewise maintains that the royal builder wanted himself to be buried within the precincts or the immediate neighbourhood of the Masjid.[79] Ilahi Bakhsh measures the sarcophagus as 9 cubits long NS and 7½ cubits broad, thereby indicating it is a Mausoleum. He is, however, supported by Cunningham.[80]

'Abid 'Ali relates the local tradition about the nature of the annexe. He says, ".. Sekandar was buried in this chamber after his defeat and death, but unfortunately the ten-domed roof fell in, and much debris collected over the tomb. When this was ultimately removed, the remains of the King's tomb was cleared away by the coolies along with the rubbish and thrown into the adjoining tank".[16]

Architecturally speaking the square multi-domed building at the rear of the western wall at the Adina Masjid recalls the cubical chamber in the tomb of Zafar Khan at Tribeni. Tombs adjoining mosques appear in Egypt, Persia and India. The origin of this custom may be traced to the original mosque of the Prophet at Madina, where he was subsequently buried.

According to historians, Sultan Sikandar Shah received fatal injuries in the field of battle against his own rebellious son Ghiyas-ud-din A'zam Shah and died at Goalpara.[81] N.B. Roy, following Blochmann has identified Goalpara with that in the vicinity of Hazrat Pandua.[82] According to them, it is situated a mile or so north of the old southern gate of Pandua and about 3 miles south west of the Adina Masjid. This is, however, corroborated by Ravenshaw who has placed it in his Map on the west of the Dinajpur Road, leading from Malda to Dinajpur between the Eklakhi Mausoleum and the Adina Masjid.

Referring to Buchanan, Stapleton says that Goalpara *alias* Fuldangi, Raniganj or Ranigarh is situated on the Tangan River, 8 miles south west of Bamangola, and that there is a fortified bridge-head at the crossing of the river by an old road. According to an informant, it is 3 miles east of Ranigarh.[83]

Contrary to the above noted views, Westmacott maintains that the body of Sikandar Shah was brought when he fell in arms against his rebellious son on the field of Chatra, 12 miles to the east of Malda.[9] About its identification, Stapleton observes, "There is no river called Chattera in the vicinity, but the name Satra or the Chattera mentioned by Buchanan Hamilton as the site of the battle is still found in the Chatra *bil* which lies immediately to the north of the bridgehead".[16] Chatra is, therefore, sometimes identified with Goalpara.

The character of the annexe, is, therfore to be determined by the identification of the site Goalpara where Sultan Sikandar Shah breathed his last. Salim says, "Shortly after, in order to wrest the Kingdom, he (Ghias-ud-din 'Azam Shah) marched with a large army from Sunargaon, and encamped at Sunargadhi. From the other side, the father also with a powerful army advanced. On the next day, on the battlefield of Goalpara, both sides marshalling their forces prepared to fight".[84]

According to Salam, Sunargadhi must have been close to Sonargaon. About the identification of Goalpara, Wise says, "In 1367, Ghiyasuddin, son of the reigning monarch, rebelled and fled to Sunargaon, there he collected an army and marched against his father. The two armies met at Gowalpara, near Ja'farganj in the Dhaka district, and nearly opposite the junction of the Ganges and Jabuna. The father was carried off the field mortally wounded. Eighty years ago (1794), his tomb was still pointed out in the neighbourhood".[85] He further states that on the west of Ja'farganj, where the Jabuna flows at the present time, stood a village called Goariah, where a Dargah of Sikandar Shah and a Langar Khana, or hospital, erected by Jahangir, are said to have existed.[85] Rennell in his Map of the District of Dacca has shown Goalpara as a little dwindled village.[86] These circumstantial evidence tend to prove that Sultan Sikandar Shah could not have been buried in the annexe of the Adina Masjid.

While exploring the site, Beglar and Marshall did not come across any sarcophagus, mentioned by Ilahi Bakhsh, or any exposed vault in which the body of Sikandar was deposited, as stated by Cunningham.[87] In point of fact, at a little distance towards the west of the annexe, remains of a hole are still visible, which may either form a sub-

terranean tunnel, reaching the burial coffin, as at the Tomb of Iletmish or just a treasure hunter's dig. Of the two, the latter is probable as the Archaeological Survey reports of the Eastern Circle are silent about such shafts.[46]

There was a Library in the Adina Masjid, which can only be placed in the building in question.[23] The southern prayer hall, (Fig. 3 & Pls. X, XI) like northern prayer hall is divided into 5 aisles by 4 stone colonnades, running at right angels. Each of these colonnades has 17 slender cylindrical columns, resting on thick square base with dog-tooth mouldings. They were probably capped by a square abacus. The roof-supporting columns which must have been graceful, rivalling those of the northern prayer hall, have long since disappeared. Formed by neatly chipped slabs, they are hollow drums, filled with random rubble work. These slender, almost ricketty columns were too weakly built to resist the thrust exerted by the arches carrying the dome. Consequently, unlike the northern prayer hall which received added strength from the squat pillars of the ladies' gallery, nothing strikingly graceful remains to reconstruct the southern prayer hall. The Archaeological Survey of India erected a supporting curtain wall in this hall.

The 17 columns carry 18 shapely pointed brick arches, which abut from the pilasters attached to the southern end wall. From these columns also spring 17 tiers of vertical arcades, each tier having 5 brick arches. They abut from rectangular piers, facing the courtyard and are joined with the pilasters of the *qibla* wall.

These tall pointed arches carry small hemispherical domes, skilfully adjusted with those of the northern prayer hall and surrounding cloisters. Like the three end arches of the northern prayer hall, the southern prayer hall has similar arches, directly communicating with the southern *riwaq* or cloisters. The domes are without drums and spring over a small square area, the transition being provided by stalactite brick pendentives.

Much simpler in design and execution than the northern prayer hall, the southern prayer hall is entered from the courtyard by 15 pointed arches (Pls. I & XV). They spring from thick rectangular piers, like those in the northern chamber. These arches are relieved gracefully with recession, excepting the two on either side of the liwan buttress. The substantial piers are placed east and west, built of random rubble work, faced with stone slabs for added strength. The most distinguishing feature in the facade of the *liwan* is the curious brick cornice with curved roof top. Nothing remains to show that there was ever an ornamental parapet above the *liwan* facade. Probably the existence of parapet above characteristic curved Bengali roof would seem quite incongruous in style, as demonstrated by the classical examples of Bengali curvilinear cornice in the Eklakhi Mausoleum at Hazrat Pandua, in the Lattan Masjid, and in the Mosque near Hemtabad, Dinajpur.[7]

Below the cornice runs two string-courses of small brick niches, each containing a characteristic stucco design. This ornamental device was repeated in the Eklakhi

Mausoleum at Hazrat Pandua, the Chika Building, the Darasbari Masjid and also in the Lattan Masjid.

There are five windows with lattice screens, each placed at the end of the five aisles of the southern prayer hall. They correspond exactly with those placed at the end of the aisles of the northern prayer hall.

In its utter ruin, the most redeeming features of the southern prayer hall are undisputedly the tastefully carved brick tympana (Pls. X & XI) along with the elegantly carved black basalt *mihrabs*.[88] These 18 semi-circular concave *mihrabs* are framed within neatly chiselled cinquefoil arches. They spring from the graceful and slender columns. These columns have elegantly moulded bases, octagonal shafts with hanging chain and bell motifs and cruciform capitals. The medallion is in the form of a lotus which seem to shoot up from its root, placed at the springline. In design and execution, they recall the niches in the northern prayer hall.

The southern *riwaq* is placed between the southern prayer hall and the eastern *riwaq* linked by three communicating arched openings. They spring from rectangular piers resembling those of the *liwan* facade. Beglar in his tentatively reliable plan has shown, contrary to those of Buchanan, Ravenshaw and Cunningham, that the southern wing has its separate entity, like that of the northern *riwaq*.[89] It is divided into 8 aisles by 2 rows of colonnades, each carrying 14 slender columns, not unlike those of the southern prayer hall. From these columns spring 15 pointed arches running from the eastern *riwaqs* to the southern prayer hall.

The southern *riwaq* is roofed over by 45 small hemispherical domes, carried on arches. The transition from the square base to the circle of the dome is provided by stalactite pendentives, which correspond unmistakably with those in the northern *riwaq*.

Presumably the curtain wall of the southern *riwaq* was pierced by 15 lattice windows, traces of which have long since disappeared, corresponding to those in the northern *riwaq*.

The northern *riwaq* placed between the northern prayer hall and the eastern *riwaq*, aims like the southern *riwaq*, to provide a covered entrance to the *liwan* for the worshippers. In elevation, alignment, internal arrangement, and technical details, it is a replica of the southern *riwaq*. It is communicated to the northern prayer hall and the eastern *riwaq* by three brick pointed arches, springing from rectangular brick piers faced with stones.

The northern *riwaq* is divided by 2 rows of arcades into 3 longitudinal aisles. Each colonnade carries 15 pointed brick arches, springing from 14 slender stone columns. These columns are not monolithic, their hollow drums being filled with random rubble work. The *riwaq* is roofed over by 45 small hemispherical domes and entered from the courtyard by 15 arched openings.[90] They spring from oblong brick piers, placed north and south like those of the southern *riwaq*. The transverse arches abut from

pilasters attached to oblong piers. This peculiar arrangement was repeated throughout in the piers facing the courtyard from the *liwan* as well as the *riwaq*.

Probably there were 15 lattice windows at each end of the 15 transverse rows of arches in the enclosure wall of the northern *riwaq*, as in the southern *riwaq*.

The eastern *riwaq*, placed between the northern *riwaq* and the southern *riwaq*, closely resembles the *liwan* in layout and internal arrangement. It measures 516 feet by 38 feet and maintains symmetrical elevation with those of the side *riwaqs*.[91] Less ornate and more austere, at least as it stands today, than the *liwan*, the eastern *riwaq* is divided into 3 transverse aisles by 2 rows of arcaded colonnades. It runs parallel with the *liwan*. Each colonnade carries 39 arches, pointed in contour, springing from slender stone pillars of the same type as observed in the *riwaqs* and *liwan*. This *riwaq* is divided into 117 (39 × 3) small squares, each roofed over by a small hemispherical dome.[92] The transition is attained by the usual stalactite pendentives.

The facade of the eastern *riwaq* must have been of pleasing proportions, each longitudinal arcade directly corresponding with that of the *liwan*. It is entered from the courtyard by 33 arched openings, the corner ones being smaller than the rest.

Although Ravenshaw does not show any gateway in his plan, Buchanan marks it in his plan. Cunningham gives importance to the three arched openings (Fig. 3) at the south east corner of the eastern *riwaq*.[93] He writes, "The most remarkable feature about this great Masjid is the total absence of any entrance gateways." He considers the eastern central entrance as "only a simple doorway or passage through the walls, unmarked by any projecting wings or rising battlements".[93] There are remains of only one entrance gateway to the north east corner of the Masjid, the side openings obviously being filled with screens, now completely disappeared.

Arguing for the public character of the south west entrances, Cunningham says that from these archways which are left open, people could enter at once into the southern and the eastern *riwaqs* from the outside. Each of these three arches, adorned with a gate, open towards the tank (Fig. 3) which was probably used for the purpose of physical purification. The possibility of such an inference is rendered more probable by the absence of any fountain in the courtyard. But it is presumed that such a carefully planned mosque as the Adina had a *qubbat* or domed fountain in the courtyard.

In spite of its timid and undignified entrance, unlike the impressive porches of the Tughlaq buildings, the eastern central archway shows a clear alignment with the central *mihrab* in the *liwan* of the Adina Masjid. Although small and insignificant, the eastern gateway which is wider than the south west entrance manifests an organic planning of mosques, as observed in the mosque of Damascus, the mosque of Cordova, the mosque of Abu Dulaf as well as the Quwwat-al-Islam Mosque at Delhi, the Arahi-din-ka-Jhopra at Ajmer, the Jami' Masjid at Mandu and the Khirki Masjid at Delhi. Cunningham himself points out the incongruous appearance of the side entrances : "as this arrangement utterly spoils the symmetry of the building, it was probably an

afterthought, when the single small door in the middle of the east side was found utterly insufficient".

Due to the lack of the informations about the upkeep, reconstruction, additions and alterations, of the Adina Masjid, it is extremely difficult to say whether the side entrances were part and parcel of the building or an afterthought. Scrutinizing the building materials used, the style of ornamentation and its skilful disposition in relation to elevation, it may be assumed that they were added in the later part of the reign of Sultan Sikandar Shah. To cope with the ever-increasing congregation the triple archway at the south west corner of the eastern *riwaq* was added.

The enclosure wall of the eastern *riwaq* is richly adorned with 35 delicately carved lattice windows, each with cusped relieving arches, hanging chain-and-bell. There are also 3 trellis windows at each end of the aisles towards the north and the south.

Cunningham observes, "The exterior of the Masjid is very plain, the slight mouldings and weakly marked niches being lost sight of in the great length of the wall. The front wall of the masjid also is plain, all the architects' strength having been reserved for the inner side of the back wall, which is highly decorated. The patterns, however, are much too small and too shallow for the great extent of the wall over which they are spread".[93] Nevertheless, the monotony of the bare wall is relieved by geometrical panelling and surface encrustations.

Beglar has elaborately discussed the system of drainage in the Adina Masjid. He writes, "it will have been seen that the architect ...... had so far designed the building not only with great success in an aesthetic point of view, but had kept clearly in view the materials available to hand so as to utilize them to the utmost......no less clearly has he displayed his foresight and capacity in providing for the efficient drainage of the great building he was erecting".[31]

The existence of a well-planned system of drainage is an imperious necessity for a building in a country like Bengal where average rainfall is very heavy. It is proved by the sloping floor level of the Adina Masjid. This is to be observed from the central nave as its highest point to the portion of the eastern *riwaq* at the gargoyle. (Fig. 3) The slope is detected by Beglar after careful examination of the pillars, niches, the springlines of arches and the positions of the cornices of the eastern *riwaq* which is much higher and taller than those of the *liwan*. Such variations have accrued due to the fact that the floor of the eastern *riwaq* at its lowest point is much lower, as much as 5 feet, than the floor of the great central vaulted nave.[31]

Along the foot of the line of arches all round the inner courtyard, there was a shallow, 6 inches deep, terraced catch-water of *pakka* or beaten concrete. It carries all the stray water from the *riwaqs* and the courtyard, and had a final outlet into a covered stone-lintelled underground channel. The channel finally passes under and across the eastern *riwaq*, discharging the accumulated water from the gargoyle into a brick stepped channel and eventually into the tank situated to the east of the Mosque.

'Abid 'Ali says, "a drainage hole in the east wall is closed by a stone crocodile with large head and trunk, the mouth of which served to carry off the rain water from the compound".[16] Ravenshaw published a curious sculptured figure in black hornblende, as he puts it, "bearing somewhat the appearance of a Hindu god". Later on R.D. Banerjee republished this piece as a *makara*-gargoyle. In sculpturesque quality and the material contents, the Pandua gargoyle bears an unmistakable resemblance to the *makara*-gargoyle from Patna published by Banerjee.[94]

The real character as well as the distinguishing features of the Adina Masjid have yet to be determined. In the present crumbling state of this one-time "wonder of the world",[2] as Cunningham calls it, it is well nigh impossible to say whether this magnificent mosque occupies the site of any Hindu or Buddhist temple. A group of scholars failed to see in the impressive Adina Masjid anything more than a mere assemblage of Hindu or Buddhist fragments, arranged skilfully to adhere to a mosque plan. Ilahi Bakhsh started the controversy when he wrote, "It is worth observing that in front of the *chaukath* (lintel) of the Adina Masjid, there was a broken and polished idol, and that there were other idols lying about. So it appears that, in fact, this mosque was originally an idol-temple".[34] Beglar steps up this controversy by saying, "the Adina Masjid occupies the site, of a once famous, or at least a most important, and highly ornamented, pre-Muhammadan shrine";[31] he depends for his arguments on a Proto-Bengali inscription (Fig. 4b) discovered in the building which bears the name of Brahma. Saraswati seems to have carried the thesis too far when he writes, "an examination of the stones used in the construction of the Adina Mosque (one of them bearing a Sanskrit inscription recording merely a name, Indranath, in character of the 9th century) and those lying about in heaps all around, reveals the fact, which no careful observer can deny, that most of them came from temples that once stood in the vicinity".[95] Beglar even went so far as to pin-point "the sanctum of the temple, judging from the remnants of heavy pedestals of statues, now built into the pulpit, and the superb canopied trefoils, now doing duty as prayer niches, stood where the main prayer niche now stands; nothing would probably so tickle the fancy of a bigot, as the power of placing the sanctum of his orthodox cult (in this case the main prayer niche) on the spot, where hated infidel had his sanctum".[31] The existence of a foundation of a Hindu Temple in the Adina Masjid is as far-fetched as to consider the circular pedestal to the west of the *qibla* wall as remains of a Buddhist stupa (Fig. 3). It may be the base of a detached minar, as similar examples are to be seen in the mosques of Egypt, Persia and India. The classical examples of the detached *minar* are to be seen in the Malwiya tower at Samarra and in the mosque of Ibn Tulun. The Persian cylindrical tapering minarets are found at Barsian Sabzavar, Sangbast, Simnan and Sava.[96] The Ghazni *minar* of Mahmud is a typological ancestor of the Qutb minar. Indian examples of detached tower are to be seen in the now destroyed Koel minar,[97] the unfinished minar in the mosque of Bayana. Even in Bengal the minar at Chhoto Pandua and the Firuza minar at Gaud might have also served for the *'azan* by the resident *mu'azzin*.

(B) The Gunmant Masjid at Gaud
(A.H. 889/A.D. 1484)

Ilahi Bakhsh in his work *Khurshid-i-Jahan Numa* has described an interesting monument,[34] under the title of "Gunmat Mosque". This lies between the Kotwali Gate and the village Mahdipur on the eastern bank of the river Bhagirathi in Gaud. King calls it, "Gunnut Mosque" and Lambourne the "Gunmani Mosque".[98] All later historians call it "Gunmant Masjid".[2]

The Gunmant Masjid at Gaud bears an unmistakable resemblance to the Adina Masjid at Hazrat Pandua (Figs. 3,4,9 & Pls. I, II), which was however, built about a century earlier. As Saraswati puts it, "The Gunmant Mosque at Gaur is another example of the type of oblong mosque with a central nave covered by an elongated vault, flanked by two side-wings roofed by clusters of semi-circular domes".[75]

It is in fact a rectangular building (Fig. 12) with its axis placed north and south and measures 158 feet by 59 feet externally and 140 feet 9 inches by 59 feet 4 inches internally.[98] Its lay-out is very simple though its proportions are pleasing. It has a central vaulted hall leading from the courtyard to the central *mihrab* in the oblong *liwan*, flanked by two wings of the prayer hall. The central vaulted hall or nave measures 51 feet long by 16 feet 10 inches broad. On each side of it, are prayer halls, divided by two rows of arcades, each now carrying four arches. The brick arches, both longitudinal and transverse spring from square stone pillars 1 foot 7½ inches square.[2]

These arches carry 12 small brick hemispherical domes in each of the two wings, the transition from the square substructure to the circle of the dome being attained by stalactite brick pendentives.[99] The dome-bearing arches spring from the pilasters attached to the *qibla* walls, side walls, the oblong eastern pillars and the octagonal nave piers.

The pillars of the side halls are slender in construction, the two stone piers on each side of the vaulted nave being octagonal. Their pedestals are 4½ feet square.[2] In almost every details, the nave pillars of the Gunmant Masjid precisely correspond with the stumpy pillars supporting the zenana gallery in the Adina Masjid. On each face of these squat pillars are stone pilasters from which spring brick arches both longitudinally and transversely.

The most impressive part of the Gunmant Masjid was probably the *liwan* arched facade in front of the vaulted nave, a feature already introduced in the Adina Masjid. By comparison with the central vaulted hall of the Adina Masjid and what can be seen of the remains it may have been roofed over by a tunnel vault.[62] Chakravarti describes it as having "a large arched roof", which cannot be other than a vault. The existence of a vault is rendered more probable by the fact that there still remains traces of the decorative panels with ribs, descending down the apex of the arches. Indeed, the design and execution of these elegantly carved brick ribs helps us to reconstruct

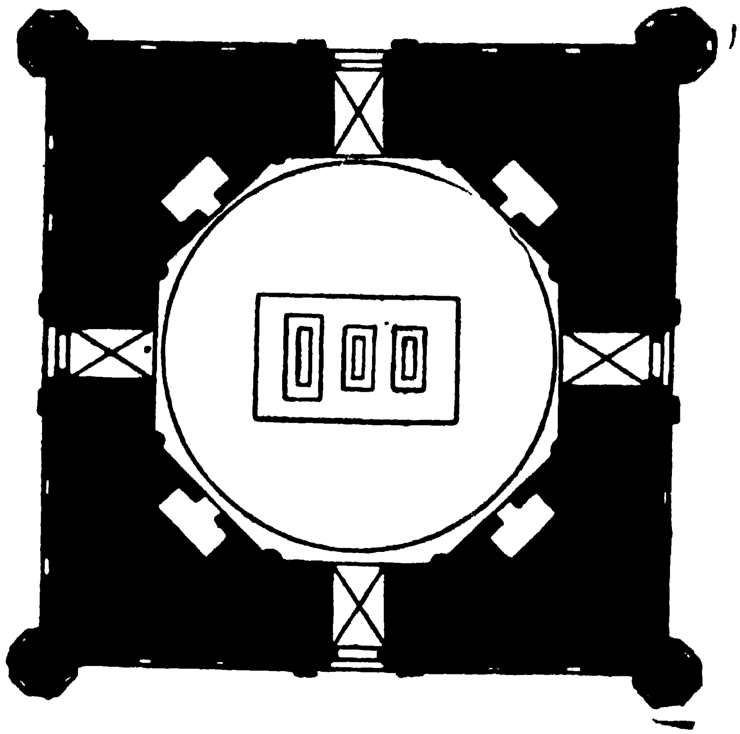


Fig. 11. Hazrat Pandua : Eklakhi Tomb : ground plan

the remains of the similar ribs of the Adina vault, built exactly a century ago, which must have served as a model.

The Gunmant Masjid is entered from the east by 9 arched openings, the central nave being flanked by 4 smaller arches on either side. These four transverse arches spring from massive rectangular brick piers. It is quite possible that the entire building was faced with stone, which has fallen down. Internally, these brick piers have abutments from which longitudinal arches spring.

The most striking feature in the vaulted nave is the central niche which is not accompanied by subsidiary *mihrabs*. The *qibla* wall of the side prayer chambers, however, contains 4 concave *mihrabs* each, as seen in the plan given by Cunningham (Fig. 12). There does not appear any buttress projection outside at the rear of the central *mihrab*, as in the Adina Masjid.

Cunningham says, "The mosque also had a corridor along the whole front, as shown by a portion of the vaulted roof which still remains. This would have increased the breadth by about 18 feet, thus bringing it up to 77 feet, which is just the same as that of the Great Golden Mosque."[2] Dani thinks that verandah is incompatible with the oblong type of mosque with vaulted central nave as in the Adina Masjid.[38]

The date of the Gunmant Masjid is quite uncertain. Ilahi Baksh does not mention anything about the builder of the mosque or the date of its construction. King described it in 1875 as "Gunnut Mosque, a large stone building without inscription". However, Cunningham does assign an epigraphic record to this mosque. He writes, "Now there

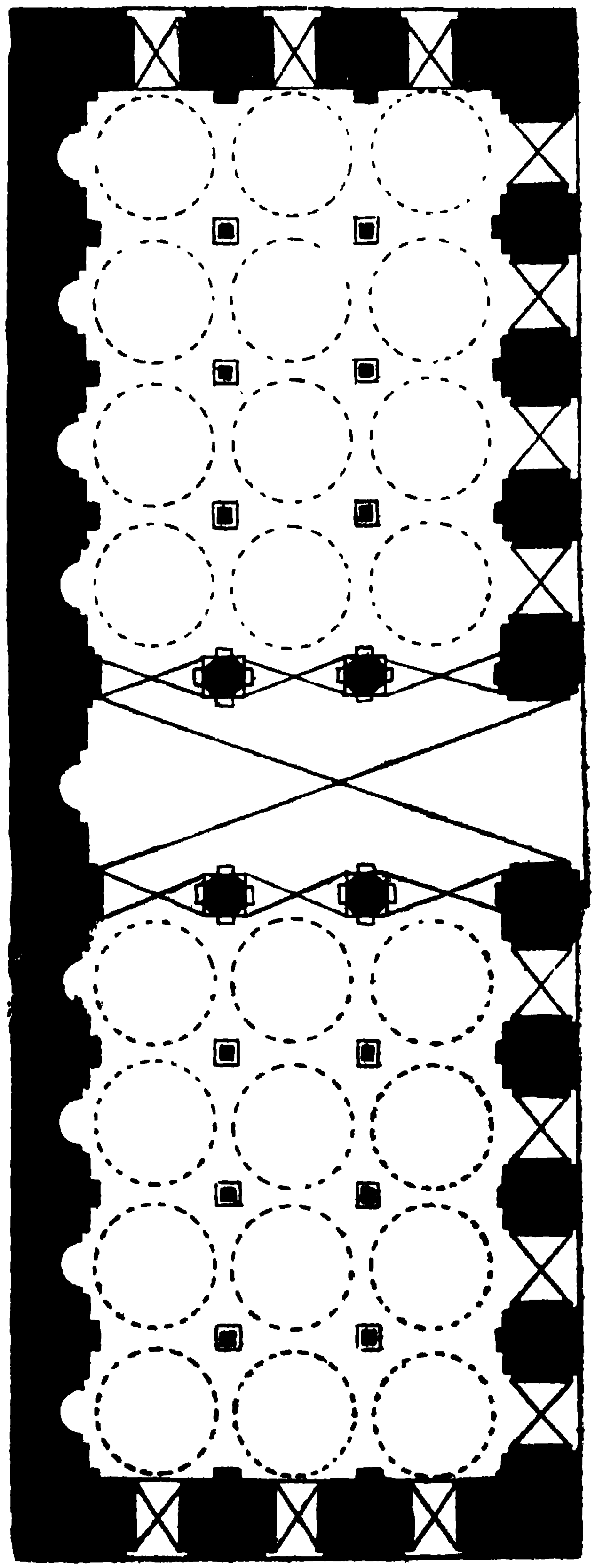


Fig Gau 'he Gunmant Masjid : ground

is a long inscription of Fateh Shah, dated in A.H. 889, at present lying in Mahdipur outside a temporary mosque, with a thatched roof which is said to have been brought from a ruined Masjid to the south of the village by a Hindu about 20 years ago".[2] Contradicting Cunningham's opinion, Saraswati points out, "that this Mosque agrees in all essential respects with the great Adina Mosque at Hazrat Panduah, more than a century earlier in date. There is no certainty that the inscription, referred to, did belong to the mosque in question and in view of the fact that the building has distinct affinities with an earlier group, the inference that it is also nearer to it in date may not be improbable".[75]

Dani differs from the views expressed by both Cunningham and Saraswati and places the mosque in question in the Husain Shahi period (A.H. 889-925/A.D. 1493-1519) on the ground that it has "octagonal towers at the corners", curved battlements, highly decorated terracotta art, terracotta imitation in stone, profusion of glazed tiles and stone facing of the walls.[38] With regard to the octagonal corner towers, it may be pointed out that they already appeared in the Eklakhi Tomb (Fig. 11 & Pl. XVI), the Chika building (A.H. 818-36/A.D. 1415-32), the Chamkatti Masjid (Fig. 13 & Pl. XVII) A.H. 883/A.D. 1478), Mosque at Masjidbari, Barisal (A.H. 870/A.D. 1483) and the Mosque of Baba Adam (Fig. 17) at Rampal, Dacca (A.H. 888/A.D. 1483). Likewise, the curved cornice, whose origin has been traced to the indigenous bamboo construction, was a characteristic feature of Muslim architecture in Bengal observable in the Eklakhi Tomb, the Mosque of Baba Adam and the Tantipara Mosque (Pls. XXV & XXVI). The stucco design, which is one of the most distinctive features of Muslim decorative art in Bengal may be seen in the Mosque of Chhoto Pandua at Hughli (A.H. 699/A.D. 1300). Stucco revetment and glazed tiles of *Kashi* style appear earlier than the Gunmant Mosque, such as the Mosque at Chhoto Pandua, the Eklakhi Tomb, the Chamkatti Masjid, the Dakhil Darwaza (A.H. 841-864/A.D. 1438-60) and the Tantipara Masjid (A.H. 885/A.D. 1480). So far as the stone facing is concerned it may be said that it is certainly not an innovation in the Gunmant Masjid.[2] The Tomb of Zafar Khan Ghazi at Tribeni, Hughli, is one of the earliest known examples of stone facing.

The text of the inscription referred to by Cunningham is as follows :

Text

قال النبی صلی الله علیه و سلم من بنی مسجداً الله بنی الله تعالی قصراً فی الجنة قد
بنی هذا المسجد فی زمان سلطان السلاطین قهرمان می الماء و الطین کاشف اسرار القران
عالم علوم الادیان و الابدان خلیفته الله باحجة و ابرهان جلال الدینا و لدین ابو المظفر فتحشاه
سلطان ابن محمود شاه السلطان خلد الله ملکه و سلطانه و اعلی امره و شانه و بسعی خان الاعظم
و خاقان المعظم الواثق بالمنان خان معظم دولتخان وزیر لشکر تقبل الله منه فی سنته تسع
و ثمانین و ثمانمایته -

Translation : "The Prophet may the blessings and peace of Allah be on him!—has said : 'He who builds a mosque for Allah, Almighty Allah will build a place for him in Paradise'. Verily this mosque

was built in the time of the Sultan of Sultans, the Valiant Warrior amidst water and clay, who is the Revealer of the Secrets of the Qur'an, Learned in all branches of Learning, both as regards Religion and the (care of) bodies (i.e., a doctor), Viceregent of Allah by deed and proof, Jalal-ud-Dunya wa-din Abul Muzaffar Fath Shah Sultan, son of Mahmud Shah, the Sultan—May Allah preserve his rule and sovereignty! by the Great Khan and Exalted Khaqan, who trusts in the generosity of the Beneficient, the Exalted Khan Daulat Khan, Commander-in-Chief of the Army (*Wazir-i-Lashkar*). May Allah accept him!—in the year eight hundred and eighty nine." (A.H. 889/A.D. 1484) [45]

The Arabic text of the inscription is engraved in two lines of equal parts : separated by a raised horizontal band on a black stone. The tablet provides the most curious example of the border carving in the middle of the top raised band, containing the phrase : *Bismillah ar-Rahman ar-Rahim*. In the dimension of the stone and the style of calligraphy, Fath Shah's inscription dated A.H. 889/A.D. 1484, bears unmistakable resemblance to the epigraphic records of the Chamkatti Masjid (A.H. 883/A.D. 1478) and the Tantipara Masjid.

According to Stapleton, "......it (Fath Shah's inscription) contains most interesting allusions to the geography of either Gaur or more probably—Eastern Bengal where several inscriptions of the reign of Jalaluddin Fath Shah have been found as well as the learning of the ruling Sultan".[16] Moreover, it throws light on the less known military hierarchy of Medieval Bengal as the builder appeared to be the Commander-in-Chief.

So far four inscriptions have been discovered from the village of Mahdipur in the vicinity of the Gunmant Masjid, three of which belong to Fath Shah (A.H. 886-893/ A.D. 1481-1487). To these may be added another unpublished inscription, bearing the date A.H. 893/A.D. 1487-88, now in the British Museum. They are given below :

Date A.H/A.D.	Provenance	Monument	Builder	Reign
889/1484-5	Temporary mosque at Mahdipur village	Mosque	Khan Daulat Khan	Fath Shah
884 or 889/ 1479-80 or 1484-5	Challa Masjid, Sijdagah	?	Khan Daulat Khan	Fath Shah
891/1486	Modern mosque at Mahdipur	Mosque	Sayyid Dastur	Fath Shah
893/1487-88	Probably from Gaud	Mosque	Mansur bin al-Malik (?)	Fath Shah
?	Mahdipur	?	Malik Yazid Muazzam Zafar Khan	Husain Shah

Paul Horn published a fragmentary inscription which is said to have been fixed on the wall of the Challa Masjid in the village of Mahdipur. It records the erection of a mosque by Khan Daulat Khan who may probably be identified with that of Fath Shah's inscription, dated 889, traced by Cunningham. While Horn reads the last word of the inscription in question as اربع making it 884, Shamsuddin Ahmed

deciphers it as A.H. 889.[45] Engraved in single line Arabic the record measure 5′-7″ by 4″. Horn also published another inscription dated A.H. 891/A.D. 1486, recording the erection of a mosque by Sayyid Dastur, son of Sayyid Rahat, in the reign of Fath Shah. It measures 4′-4″ by 10″ and arranged in four squares.

The third inscription from Mahdipur published by Horn belongs to the reign of Husain Shah and, therefore, has no bearing on the Gunmant mosque, as observed earlier. It is an undated fragment, measuring 1′-5″ by 7″.

In connection with the two Mahdipur inscriptions of Fath Shah, Horn did not identify the monuments referred to therein. Moreover, they do not agree in date, phraseology and the reference to builders. The Challa Masjid cannot be identified in the present state of our informations. It is also possible that it existed in old Malda. The authentic reading of his inscription cannot be determined as Horn did not give any facsimile.

All the three inscriptions from Mahdipur, dated A.H. 884, 889 and 891, are, however, identical in their epigraphic style of the Tughra, engraved on a large slab of black basalt. But the epigraphic record, dated A.H. 889 traced and attributed to the Gunmant Masjid by Cunningham is more refined in style and contains the phrase *Bismillah ar-Rahman ar-Rahim* which is very rare indeed in Bengal epigraphy. It undoubtedly exhibits deep religious attachment of the engraver. Moreover, the Gunmant inscription of large dimension, recalls those of the Chamkatti Masjid, the Tantipara Masjid, and the Darasbari Masjid (A.H.884/A.D.1479), measuring 4′-8½″ by 3′-11″, 5′ by 1′-8″ and 11′-3″ by 2′-1″ respectively.

NOTES AND REFERENCES

1. Faria y Souza, *Manuel de Faria y Souza History of the Discovery and Conquest of India by the Portuguese* quoted by Creighton, H., *The Ruins of Gaur*, London, 1817. See also Rennell, J., *Memoirs of a Map of Hindustan or the Mughal Empire*, London, 1873; Buckland, *India : Intra and Extra Gangen*, in *Bengal Past and Present*, vol. II, No. I, 1908. It is situated in 24°54′ N and 88°8′ E on a deserted channel of the Ganges.

2. ASR, vol. XV. With a view to distinguish Chhoto Pandua in the district of Hughli, he gave the appellation Hazrat to Pandua, meaning the Resident. Thomas considers the prefix Hazrat in the sense of veneration for the immortal saints, such as Hazrat Shah Jalal and Nur Qutb 'Alam, who are buried in this ruined city. (Thomas, E., *Chronicles of the Pathan Kings of Delhi*, London, 1871).

3. Siraj, Minhaj-ud-din, *Tabaqat-i-Nasiri*, Tr. by Raverty, H.G., Bibliotheca Indica. In contrast with *Bang* or the tract subject to innundation, Barind is comparatively on elevated site. It is derived from Brind or [illegible] signifying heap. According to Blochmann, Barind comprises the region to the north of the Padma (the Ganges), and between the Karatoya and the Mahananda rivers. (Blochmann, H., *Contributions to the Geography and History of Bengal*, in *JASB*, 1873, No. 3.) Westmacott thinks that it is a geographical expression, indicating the hilly tract around Malda, Dinajpur, Rajshahi and Bogra. (Westmacott, E. V., *Old Bengal Geography—a letter to Blochmann*, in *PASB*, 1874, vol. 43). It is also spelt as Varendra (Burgess, J., *Geography of India*, with extract from a paper by late Prof. H.H. Wilson, (418-21) in *Indian Antiquary*, vol. XX, 1891).

4. Sircar, P.C., *Outlines of the Geography of India*, Calcutta, 1869.

5. *Bengal District Administration Report*, 1921-22.

6. Colebrooke, R.H., *On the Course of the Ganges through Bengal*, in *Transactions of the Asiatic Society* (*Asiatic Researches*). VII. Colebrooke surveyed in 1779-96-7. Also quoted by Rennell, J., who writes, "No part of the site of ancient Gowr is nearer to the present bank of the Ganges than four miles and a half and some parts of it, which were originally washed by the river, are now 12 miles from it". Colebrooke says, "The river was encroaching on its Eastern bank, and appeared to be gaining ground again towards Gowr; the walls of which city, it is well attested, were formerly washed by the Ganges".

7. Buchanan, F. H., *The History, Antiquities, Topography and Statistics of Eastern India*, edited by M. Martin, London, MDCCCXXXVIII, vol. III.

8. Faria y Souza, quoted by Creighton. Mohan Lal reads the term Gaur Bangala in the tomb of Babur at Qandahar whereas Darmesteter, J., reads it as *Gor wa Bangala* (*La grande Inscription de Qandahar*, in *JA*. Tome XV, 1890, Feb, March). Beveridge, however, rejects Darmesteter's reading and connects the combined word Gaur-Bangalah with that of Shahabad-Kanauj.

9. *JASB*, 1898, vol. LXVII. The term Gaur-Bangala meaning Gaur in Bengal also appears in the *Humayun Nama or The History of Humayun*, Tr. by Beveridge, A.S., London, 1902. Nizam ud-din Ahmed referred to Mahmud III as Bengali, meaning of Bengal (*Tabaqat-i-Akbari*, Bibliotheca Indica.) While Hunter, W. W., thinks that Gaud was older than Hazrat Pandua

(*Statistical Account of Bengal*, vol. VII. Districts of Maldah, Rangpur and Dinajpur, London 1876), Westmacott considers Hazrat Pandua as a city of remote antiquity than Gaud (Westmacott, E.V., *Ravenshaw's Gaur*, in *Calcutta Review*, vol. LXIX, 1879).

10. Chakravarti, M. M., *Notes on the Geography of Old Bengal*, in *JASB*, 1908, vol. IV, No.5. See also Pargiter who identifies Pundra with the country between, Anga and Banga (Pargiter, F.E., *Ancient countries in Eastern India*, in *JASB*, 1897, vol. LXVI). Dey, N.Z., *The Geographical Dictionary of Ancient and Medieval India*, Calcutta, 1927, second edition. He rejects Rockhill's identification of Pan-tu-wa, mentioned by Sing Ch' a Sheng Lan with Patna and considers Pandua as the probable city referred to by the Chinese traveller (Rockhill, in *T'oung Pao*, 1915, pp.440-44, quoted by Bagchi, P.C., see n. 12).

11. Firishta, A. Q., *Tarikh-i-Firishta*, Transl. by Elliot and Dowson, vol. II. Firishta describes Pandua as "Bundwa". The term Hazrat Pandua was changed into Firuzabad in the coins of Ilyas Shah, dated A. H. 740, 744-46-47, and Sikandar Shah's coin, dated A. H. 764, 783, 785. See Stapleton's collections in the Ashmolean Museum, Oxford; Bhattasali, N.K., *Coins and Chronology of the Early Independent Sultans of Bengal*, Cambridge, 1922.

12. Bagchi, P.C., *Political Relations between Bengal and China in the Pathan Period*, in *Visva-Bharati*, 1943, vol. I, Cheena Bhavan.

13. *ASR*, vol. XV; see also Banerjee, R. L., *Gaur*, in *JASB*, 1874, vol. 43. Both the Chinese and the European travellers have mentioned sugar as one of the chief products of Bengal (Marco Polo, *The Travels of Marco Polo together with the Travels of Nicolo Conti*, Tr. by N. M. Penzer, London, 1929; Varthema, L., *Itinerary of Ludovico de Varthema*, Tr. by R.C. Temple, Bologna, from 1502 to 1508 as translated from original Italian Edition of 1570 by J.W. Jones, London, 1928; Bagchi, P.C., *op.cit.*, p. 113; Yule, H., *Cathay and the Way Thither : Ibn Batuta's Travels in Bengal and China*, New edition revised by H. Cordier, London, 1926.

14. Bhattasali, N.K., *op.cit.*, Appendix III, *Ma Huan's account of the Kingdom of Bengal.*

15. Roy, N. B., *Rise of the Ilyas Shahi Dynasty*, in *The History of Bengal*, vol. II, *Muslim Period* 1200-1757. Edited by Sarkar, J.N., The University of Dacca, 1948.

16. 'Abid 'Ali Khan, *Memoirs of Gaur and Pandua*, edited by Stapleton, H.E., Calcutta, MCMXXXI.

17. Pemberton, J. J., *Geographical and Statistical Report of the District of Maldah*, Calcutta, 1854.

18. Francklin, W., *Ruins of Gaur*, 1810-12, India Office Library, Mss. 19. He compares the pavement of the road with that of the road seen in the ruined city of Kanauj.

19. Devikot or Debkot is situated close to the modern thana of Gangarampur in the district of Dinajpur. It is on the eastern bank of the Purnabhaba river, 33 miles to the north of Hazrat Pandua, 70 miles to the north, north-east of the Citadel of Gaud (f.n.2).

20. f.n. 3. Minhaj writes, "From Lakhnouti (Gaud) to the city of Lakhan-or (Birbhum) on the one side, and as far as Diw-kot on the other side, Sultan Ghiyas-ud-din Iwaz (caused) an embankment (to be) constructed, extending about 10 days' journey."

21. Rennell, J., *A Bengal Atlas containing Maps of the Theatre of War and Commerce on the side of Hindustan*, London, MDCCLXXXI, 1781.

22. Ibid, Pl. V. In a map of the Northern Part of Hindustan, Pandua is shown as 'Purria'. In his map of Northern Province of Bengal, Pl. V., we get both the locations "Purruah" and "Addyna", the site of the mosque. Pemberton, drew a map of the district of Malda in 1847-48, showing "Burdooroof Parooa."

23. Prasad, S., *Ahwal Gaur wa Pandua* in the India Office Library, 2841, edited by Dani. (*MAB*)

24. EMA, vol. I.

25. Steingass, *A Comprehensive Persian English Dictionary*, London.

26. Wollaston, A.N., *A Complete English Persian Dictionary*, London, 1889.

27. Desmaisons, J.J.P., *Dictionaire Persian-Francais*, vol. I. He reads ادينة as 'edine' and translates it as le vendredi, meaning Friday. See also Harrap's *Standard French and English Dictionary*, Part I, edited by J. E. Mansion, p.880. Vullers also translates ادينة as 'dien veneris,' meaning Friday (*Lexicon Persico-Latinum*, Tomis I, Bonnse and Rhenum, p. 22). See also Pedersen, Johs.. *Masjid*, in *EI.*, vol. III, pp. 327-28. In tracing the various terms used for congregational mosque, the following usages will be found :

    (a) *al-masjid al-akbar* or *kabir*—the Madina Mosque of the Prophet was called thus, *BGA*, VII 245.
    (b) *al-masjid al'azam* (Tabari, I, 2494 : II, 734, 1701, 1702 : Bukhari, pg. 5 : Tabari, *Tafsir*, XI, 21, centre).
    (c) *Masjid al-Ja'ma* (Yaqut, iii, 896 : al Fustat : also Tabari ii, 1119 : Ibn Kutaiba, Ma'arif, ed. Wustenfeld, p. 106.
    (d) *Masjid Jami'* : Baladhuri, 289 : Mada'in; Yaqut, i, 643, 647; Basra.
    (e) *Masjid al-Jami'*, Yaqut, iii, 899 : iv, 885; *BGA*, ii, 298, 315, 387 ; vii, 110, etc.
    (f) Simply *al-Jami'*, Yaqut, i, 400; Baladhuri, p. 348.
    (g) *Masjid-al-Khutba*; Makrizi, iv, 44, 64, 87.
    (h) *Jami' al-Minbar*, *BGA*, iii, 316, for Jami', i, 8.
    (i) *Masjid al-Jami' wa-Minbar*, *BGA*, v, 304-6.

    In the Adina mosque, the term *al-Masjid al-Jami'* has been used in the inscription bearing the date of construction.

28. Burgess, Jas. and Cousens. H., *The Architectural Antiquities of Northern Gujarat*, *ASWI*, vol. IX, London, 1903. Sayyid Ahmed, *Asar-as-Sanadid*, quoted by Cunningham, *ASR*, vol. I. Buchanan spells it as Adinah instead of Adina (*Account of Dinajpur*, Mss. EUR D. 71, in the India Office Library, vol. I, Appendix II)

29. Stewart, C., *The History of Bengal From the First Muhammedan invasion until the virtual conquest of that country by the English*, 1757, London, 1813. The reign of Sultan Ahmad Shah (A.H. 836-39/A.D. 1432-35) cemented the diplomatic relation between Persia and Bengal when Shah Rukh, son of Timurlane sent an embassy, headed by Maulana 'Abd al-Rahim, in connection with the Persian intervention in the aggression of Jaunpur upon Bengal. The period of the intervening Hindu dynasty witnessed the revival of the Persian idea of glazed tiles, which had already penetrated Sind and Multan, in the architectural monuments of Bengal as exemplified by the Eklakhi Mausoleum (A.H. 818-36/A.D. 1415-32). 'Abid 'Ali reports that Persian was the court language of the district of Malda till the year 1834 A.D. when it was replaced by Bengali.

30. Salim, G.H., *Riyazu-s-Salatin*, Tr. by A. Salam, Bibliotheca Indica, Calcutta. 1904. The King Ghiyas-ud-din once fell ill and despairing of life, selected three *harem* girls, named Sarv, Gul and Lalah to perform the last bathing rites. Soon after his recover he recited the following distich when the other girls of his *harem* started to taunt the favoured ones as bathers : "Cup bearers, this is the story of Sarv (the Cypress), Gul (the Rose) and Lalah (the Tulip)". When he could not complete the verse he sent it to Hafiz, who added the following lines : "From this Persian sugar-candy that goes forth to Bengal Hafiz, from the yearning for the company of Sultan Ghias-ud-din, Rest not; for they (this) lyric is the outcome of lamentation".

31. Beglar, Jas. D.M., *Archaeological Survey of Bengal, Report 1888*, Calcutta, 1888.

32. It is extremely doubtful whether the fragmentary sculptures could be dated prior to the 10th century A.D.

33. f.n. 31. It is interesting to note that vandals and treasure-hunters dug large pits in the foundations of the monuments of Gaud and Hazrat Pandua, as attested by Manrique who visited Gaud in 1640, during the Governorship of Shah Shuja'. He narrates the story of the discovery of three large copper vessels, containing silver and gold coins, dug out by a villager from a ruined wall, presumably the Bais Ghazi Wall of the Citadel of Gaud. (*Travels of Fray Sebastian Manrique* by C. Eckford Luard and H. Hosten, The Hakluyt Society, London, vol. I.)

34. Ilahi Bakhsh, *Khurshid-i-Jahan Numa*, edited and translated by H. Beveridge, in *JASB*, vol. XLIV, Part I, 1895.

35. Hasan S.M., *Adina Masjid at Hazrat Pandua, 1970*.

36. Ilahi Bakhsh adds a note that the word جامع can be read as الجامع and also may mean "to include". "to embrace". 'Abid 'Ali states that the inscription was engraved by Sultan Sikandar Shah himself. It is hardly true as it is unconventional. Generally, engravers commissioned by the Kings undertake the work of carving the epigraphic record, as for instance the Dinajpur inscription of Sikandar Shah, dated A.H. 765/A.D. 1363 executed by "Ghiyath, the Golden-handed". Although the Dinajpur record and the Adina Masjid inscription bear little resemblance, it is presumed that the latter was executed by that distinguished engraver "Ghiyath". (f.n.34).

37. Salim's statement that Sultan Sikandar Shah reigned only 9 years and some months is not corroborated by numismatic and epigraphic evidence (f.n. 30). In fact, as historians tell us, he ruled from A.H. 758 to 795, corresponding to A.D. 1357 to 1392, that is, 35 years. (f.n.14)

38. Horn, P., *Muhammadan Inscription from Bengal*, in *Epigraphia Indica*, vol. II, *ASI*, NS. See also Thomas, E., *The Initial Coinage of Bengal introduced by the Muhammadans on their conquest*, 600-800 (1203-1397), London, 1866. *MAB*. Dani, A.H., *Inscriptions of Bengal*, in *Journal of Asiatic Society of Pakistan*, Appendix II.

39. f.n. 7. It is interesting to note that Beveridge in his edition of the *Khurshid Jahan Numa* refers to A.H. 704 as the date mentioned by Buchanan (f.n.36). Both the original *Ms*. as well as Martin's edition of Buchanan bear the date A.H. 707—a date obviously taken from either Francklin or Prasad. (f.n. 18 & 23)

40. f.n. 18. See also Beveridge, H., *Major Francklin's MS description of Gaur*, in *JASB*, vol. LXIII, 1894, Pl. I, No. 2..

41. f.n. 23. See also Beveridge, H., *A short notice of a Persian MS on Gaur*, in *JASB*, vol. LXXI, Pt.1, No. 1, 1902.

42. Prasad reads it thus (f.n.23) :

سنة رجب سنة سبعة و سبعماية Here سنة (Sanat), occurs twice and it is thought that he meant the سنة after رجب (Rajab) to be ست or 6th.

43. f.n. 3. Discrepancies occur in the readings of Blochmann and those of Prasad.

Prasad (1810)	Blochmann (1873)
هذا العمارة المسجد	العمارة هذا المسجد
الجامع	الجا [ما]
كمل الاكرم	اكرم اكمل
منجر الاسلاطين	السلاطين
المويد بتائيد	الموثق بتائيد
ابو المجهد السلطان	ابو المجاهد سكندر
	شاه سلطان بن الياس شاه السلطان
خلد الله ظل جلاله	خلد خلافته
سنة رجب سنة	ست و رجب
سبعة و سبعماية	سنة سبعين و سبعماية

Salam supports the statement of Blochmann wrongly in his translation of the *Riyaz us-Salatin*, p. 105, no.2.

44. f.n. 38. Horn merely copies the inscription mentioned by Ilahi Bakhsh, bearing the date ٧٧٦ (776) :

سنة ست و سبعين و سبعماية

45. f.n. 34. See also Ravenshaw, J.H., *Gaur: its Ruins and Inscriptions*, edited by Mrs. C. Ravenshaw and anotated by Grote, A., London, 1878, Pl. 45, No. 1. He reads the date : و سبعماية التاريخ ست رجب سنة سبعين i.e. 6th Rajab of the year A.H. 770, corresponding to 14th February 1369.Dani is inconsistent when he reads the date as 6th Rajab, 770/14th February, 1369 in one place (*Muslim Inscriptions*) and also A.H. 776/A.D. 1375 in another place (*MAB*). Shamsuddin Ahmad reads 6th Rajab A.H. 770 (*Inscriptions of Bengal*, Rajshahi, vol. IV, Rajshahi, 1960, pp.35-38.)

46. Marshall, J., *Annual Report, ASI, DG*, 1902-3.

47. See Ch. IV.

48. Richmond, E.T., *Moslem Architecture*, London, 1928.

49. f.n. 18. Francklin says that the space of ground occupied by the site of the Adina Masjid cannot be less than 1600 square feet. Beglar gives exhaustive data ;

785-6	: Cordova	: Mosque	: 26,500 sq. yards
847	: Samarra	: Great Mosque	: 45,500 sq. yards
861	: Egypt	: Mosque of Ibn Tulun	: 31,000 sq. yards
1191	: Delhi	: Quwwat al-Islam mosque as planned by 'Alauddin Khalji.	: 736'11" × 448'½"

(Page, J.A., *An Historical Memoir on the Qutb : Delhi, ASIM*, Pl. 1. *A Short Account of EMA*,

50. Marshall, J., *The Monuments of Muslim India*, in *CHI* vol. III, Cambridge, 1928.

51. f.n. 1. Buchanan (f.n.7) gives the dimensions 500′ NS × 300′ EW (*op. cit.*, vol. II, pp. 649-650) : Cunningham gives the dimensions as 507′ ½″ × 285′ ½″ (*ASR*, XV, p. 90). Fergusson gives the measurements as 507′ × 285′ (*A History of Indian and Eastern Architecture*, London, 1910,

52. Ibid. Cunningham measures the courtyards as 497′ × 159′, (*ASR*, vol. XV). Beglar mentions 419′ × 186′ (f.n.3).

53. Ibid. Cunningham states that the depth of the *liwan* is 62 feet. (*ASR*, vol. XV.)

54. *SPA*, vol. 1.

55. *EMA*, II.

56. Derek, H. & Grabar, O., *Islamic Architecture and its decoration*, London, 1964 Pls. 60,320.

57. *EI (NB)*, *Dihli*.

58. Brown, *Indian Architecture (Muslim period)*, Bombay, ND.

59. I am indebted to Miss E. Beasley, for her opinions. She tells me that there are two ways of preventing a pier which supports an arch from over-turning : Firstly : By propping it up with a flying buttress : Adina Masjid side arch; Secondly : By a heavy downward weight on top of the pier : Adina Masjid may have several superimposed arches as at Jaunpur.

60. Sleemen, W.H., *Rambles and Recollections of an Indian Official*, vol. II, edited by V.A. Smith, London.

61. Terry, J., *The Charms of Indo-Islamic Architecture*, London, 1955; Perrot, G. and Chipiez, C., *History of Art in Persia*, London, 1892. See also *SPA*, vol. I. Figs. 100, 152, 134.

62. Chakravarti, M.M., *Pre-Mughal Mosques of Bengal*, in *JASB*, vol. N.S. 1910. See also Saraswati, S.K., *Indo-Muslim Architecture in Bengal*, in *Journal of the Indian Society of Oriental Art*, vol. IX, 1941.

63. Incidentally, it is of interest to mention that Westmacott reports the construction of a brick vaulted chamber, excavated by Lloyd Jones at Hemtabad. Westmacott, E.V., *Letter to the commissioner of circuit*, Rajshahi Division in the *Proceedings of the Government of Bengal, dated July*, 1875 : *Archaeological Report on the District of Dinagepore*, No. 154, dated Dinajpur, the 19th April, 1875. See also Beglar, *Appendix III*, pp. 4-6.

64. f.n. 31. *Appendix III*, pp. 4-6. The existence of the principal and the subsidiary arches or ribs beneath the vault is also supported by Miss Beasley.

65. Creswell, K.A.C., *The vaulting system of the Hindola Mahal at Mandu*, reprinted in *Indian Antiquary*, July, 1918, XLVII.

66. *SPA*, II. Wilber, D.N., *Architecture of Islamic Iran (The Il-Khanid period)*, Princeton, 1955.

67. Fergusson, J., *The Illustrated Handbook of Architecture*, London, 1855.

68. f.n. 3; Bolton, C.S., *Notes on Gaur and Pandua ,Annual Address*, in *PASB*, 1903, Jan-Feb He says that the walls were faced outside with black hornblende, and ornamented within by trellis work on three sides, while one side contains prayer niches of hornblende elaborately sculptured. The stones used in the monuments of Gaud are black chlorite basalt from Rajmahal which has been erroneously described as hornblende by Buchanan and Bolton, and marble by Francklin, who in his appendix adds that it might be granite, called by the natives *Sung Moosa* (Francklin, pp. 53-56; Buchanan, pp. 654-655). Buchanan writes, "There is no calcareous marble in the building. The rougher parts are granite, the more polished are indurated potstone impregnated with hornblende".

69. f.n. 13. Ravenshaw and Ilahi Bakhsh refer to a broken idol under the steps near the pulpit.

70. f.n. 18. Prasad gives the measurement as 20 cubit × 30 cubits; 1 cubit = 18 inches (f.n. 23)

71. f.n. 31. Beglar wrongly states that there are 18 double superimposed pillars. In fact there are 11 outer ponderous pillars and 10 inner ones.

72. *A Short Account of EMA.*

73. f.n. 13. : 'Abid' Ali, Pl. VII and *MAB*, Fig. 3 show only 3 *mihrabs* and 3 doorways. But Buchanan, Pl. IV of Martin's *Eastern India*, vol. III, and Ravenshaw, Pl. 36, have indicated 4 niches and 2 doorways.

74. Ahmad, N., *Tabaqat-i-Akbari*, Tr. by B. De.

75. Saraswati, S.K., *Indo-Muslim Architecture in Bengal*, in *JISOA*, vol. IX, 1941.

76. Bloch, T., *AR, ASI, EC* ; 'Abid' Ali quotes it.

77. f. n. 16; see also Buchanan, (Martin), vol. II, who gives the measurement of this cubical annexe as 38 feet each way. Ilahi Bakhsh, p. 211, 9 cubits NS and 7½ cubits broad while he describes it as a square structure, equivalent to 13½ feet × 11¼ feet or so. According to Cunningham, it is a square of 41 feet 9 inches inside, *ASR*, XV.

78. *MAB*. Dani corrects the statement of 'Abid 'Ali who thought that the annexe was roofed by 10 domes.

79. f.n. 51. He writes that his ruined tomb is attached to the west wall near its north end.

80. f.n. 34. Cunningham says, "The sarcophagus is in ruins, and the inside of the vault, in which the body was deposited, is now exposed."

81. Stewart, C., *The History of Bengal : From the First Muhammadan Invasion until the virtual conquest of that country by the English*, 1757, London, 1813.

82. Roy, N.B., *Rise of the Ilyas Shahi Dynasty*, C.H. VI. Sikandar Shah (A.D. 1357-89) in the J.N. Sarkar, *The History of Bengal*, vol. II, Muslim Period, 1200-1757, The University of Dacca, 1948.

83. f.n. 16. He cites three places as Goalpara : the other two are situated a mile or so north of the southern gate of Pandua as stated by Blochmann and another, according to the informations of Najmul Husain, at a place 3 miles east of Ranigarh on the Badshahi road, and opposite to a large tank, East and West.

84. A. Salam, the translator of the *Riyaz*, says that the place-name of Sunargadhi has not been identified but it must have been close to Sunargaon, f.n.30.

85. Wise, J., *Notes on Sunargaon*, in *JASB*, 1874.

86. Rennell, J., *Map of the Inland Navigation*, in *A Bengal Atlas, containing maps of the theatre of war and commerce*, MDCCLXXXI.

87. Beglar has shown a cluster of tombs on the northern side of the Masjid and on the western side of the Annexe. (f.n.31).

88. In the Royal Asiatic Society I found this drawing done by Francklin.

89. Beglar, Plan of the Adina Masjid; Buchanan (Martin), II, Pl. IV; *ASR*, vol. XXV; Ravenshaw, Pl. 36. Grote says in his annotation that "this plan differs from Buchanan Hamilton's only in having an additional arch on the south side of the quadrangle".

	Buchanan	Beglar	Ravenshaw /Cunningham
Pillars	15	17	16
Total arches	16	18	17
Small squares in the *riwaq* ...	13×3	15×3	14×3
and total dome	=39	=45	=42
Arches of the S. *riwaq* only ...	13	15	14

90. f.n. 16. 'Abid'Ali mentioned only 39 domes, presumably following Buchanan's plan.

91. f.n. 31. Buchanan gives the measurement as 500 feet long and 38 feet wide, (f.n. 7).

92. f.n. 31. Plate, see Fig. 73: 'Abid 'Ali says that in the eastern *riwaq* there were 108 domes (f.n. 16)

93. *ASR*, XV, Pl. XXV. At the same time he writes, "There is also a small arched opening."

94. Banerjee, R.D., *Eastern Indian School of Medieval Sculpture*, Delhi, 1933, Pl. LXXXI; see Pl. LVb-c.

95. Saraswati, S.K., *Notes on Tours in the Districts of Maldah and Dinjapur*, in *J and PASB*, vol XXVIII, 1932, No. 1.

96. Diez, E., *Manara*, in *EI*, vol. III, 1936.

97. *ASR*, vol. I : See also Beglar, who writes, "It is also fair to add that the opinion of the draftsman of the Survey, Babu Rajmohan Banerjya, who has minutely measured the Masjid...is adverse to my view (being a stupa), and agrees with the opinion of the Director-General regarding the basement S., as not a stupa; his idea that it was a well, and the conjecture of the Director-General that it is the base of a minar, appears to me however to be both rendered untenable by the fact which no theory can ignore".

98. King L.B.B., *A Letter from L.B.B. King, Officiating Collector of Malda to the Government of Bengal, dated 29th March*, 1875. *On the present state of the ruins of Gaur*, in *PASB*, 1875, and also Lambourne, G.E., *BDG*, Malda, vol. XXV.

99. Ilahi Bakhsh's statement that there were only 7 domes could not be accepted.

II SQUARE DOMED TYPE

The square domed type of pre-Mughal mosques is distinguished by a cubical prayer chamber with or without a corridor— corner towers, wall panelling with offsets and recesses, *mihrab* projections in the *qibla* wall, curved cornice, stone casing, stucco designs, glazed tiles, mouldings, etc. The striking mosques of this type are again classified into sub-styles, according to the existence of corridor.

(i) without corridor

Some of the notable mosques of Bengal are conspicuous by the absence of corridor, namely :

1. The Mosque at Mollah Simla, Hughli
2. The Mosque of Binat Bibi, Dacca
3. The Mosque of Shah Safiuddin, Chhoto Pandua, Hughli
4. The Mosque at Goaldi, Dacca
5. The Mosque at Navagram, Pabna

Originally built during the reign of Sultan Sekandar Shah about a year later than the construction of the Adina Masjid at Hazrat Pandua in A.H. 777/A.D. 1377, the Mosque at Mollah Simla in the district of Hughli, is, in the present state of our knowledge, the earliest known example of square domed type of mosque of pre-Mughal Bengal.[1] Though it underwent considerable renovation, the Mosque measuring 17 feet square internally and 24 feet square externally betrays the characteristic pre-Mughal features, namely, the curved cornice, hemispherical domes, octagonal towers at four corners, etc. The Chika building is the earliest known example of a neat little building roofed over by a hemispherical dome in Gaud, which unmistakably recalls the Eklakhi Tomb at Hazrat Pandua (Fig. 11 & Pl. XVI), dated A.H. 818/A.D. 1415.[2] Built during the period, A.H. 818-36/A.D. 1415-32, the Chika building, measuring 42 feet square internally and 71 feet 6 inches square externally anticipates the Mosque of Binat Bibi, measuring 12 feet square, dated A.H. 861/A.D. 1457, at Dacca, the Mosque of Shah Safiuddin, measuring 25½ feet square, dated A.H. 882/A.D. 1477, at Chhoto Pandua, Hughli, (Fig. 18), the Mosque of Goaldi, measuring 16½ feet square, dated A.H. 925/A.D. 1519, in the district of Dacca, (Fig. 16), and the Mosque of Navagram, measuring 24 feet square, dated A.H. 932/A.D. 1526, in the district of Pabna.[3]

The oldest existing mosque in Dacca is the Mosque of Binat Bibi which is so completely renovated as to obscure its original pre-Mughal architectural features. Buttressed by octagonal corner towers, it is roofed over by a single dome and still betrays the curved battlemented cornice and pointed arched openings. As D.B. Spooner writes about the Mosque of Shah Safiuddin, "there is nothing unique about the building architecturally, although it is somewhat exceptional in certain details—the transition from square to circle of the roof by gradually advancing the wall at the four corners so that they meet in a semi-dome like form and are bound by pointed arches cutting off the corners and transforming the square into an octagon with the resulting inter-

spaces filled with curvilinear pendentives so corbelled as to convert the octagon into the final circle or collar from which the dome springs".[4] The method of roofing recalls similar device used for the first time in the Eklakhi Tomb at Hazrat Pandua, in which the exterior square is changed into an inner octagon hold the dome by filling the entire core with brickwork.[3]

The conspicuous features of the square domed type of mosque are also evident in the Mughal mosques, namely, the Bibi Masjid, measuring 22 feet square, dated A.H. 1038/A.D. 1628, at Sherpur, Bogra, and the Mosque of Sadi, measuring 27 feet square dated A.H. 1062/A.D. 1652 and the Mosque of Shah Muhammad, measuring 32 feet square, dated A.H. 1090/A.D. 1680, both at Egarasindur, Mymensingh.[3] The 17th century Mosque of Allakuri at Dacca, measuring 12¼ feet square, also conforms to the old pattern of square domed building.

(ii) with corridor

Another interesting variety of square domed type is to be found in the following Mosques of pre-Mughal period with corridor :

1. The Mosque of Gopalganj, Dinajpur
2. The Mosque at Masjidbari, Bakerganj
3. The Chamkatti Masjid, at Gaud
4. The Rajbibi Masjid, Gaud
5. The Mosque at Sankarpasa, Sylhet
6. The Lattan Masjid, Gaud
7. The Mosque at Kheraul, Murshidabad
8. Rukn Khan's Mosque at Devikot, Dinajpur
9. The Mosque at Sura, Dinajpur

The building tradition of square domed monuments is to be traced in the early phase of Muslim architecture. The square planning is to be seen in the earliest mosque of Islam at Madina, which was built by the Prophet Muhammad in A.H. 1/A.D. 622, and also in the Mosque of Kufa, built by Sa'd ibn Abi Waqqas in A.H. 17/A.D. 638, measuring 100 cubits square and 200 cubits square respectively. The square plan of mosque is also manifest in the Mosque of Wasit, measuring 200 cubits square, dated A.H. 85/A.D. 703-4, built by Hajjaj bin Yusuf and in the Mosque of Harran, measuring 200 feet square, dated A.H. 127-33/A.D. 744-50.[5] The Abbasid Mosque of Baghdad, measuring 200 cubits square, dated A.H. 145-50/A.D. 762-67, as well as the early Persian and Central Asian mosques at Bukhara, Barsian, Kaj, Dashti, Eziran, Ardabil, etc., are square in plan and roofed overby a dome.[6] The single domed building of Iran is typified by the Mosque of Hazara near Bukhara, dated 9th century A.D. which is the proto-type of the Tomb of Isma'il also at Bukhara.[7] Built in the 14th century A.D. the Mosques at Dashti, Kaj and Eziran near Isfahan have square domed prayer chambers with flanking corridors, prominent portals and forecourts. Interesting examples of this type are also to be seen in the Tomb of Iletmish, erected sometime before 1235 A.D. at the north-east angle of the Quwwat al-

Islam Mosque at Delhi, in the original *Jama'at Khana* Masjid at the Dargah of Nizam ud-Din Aulia at Delhi dated 14th century A.D.[8] We hardly come across any other example of this type until the 17th century when "Gol Gumbaz" or the Tomb of Adil Shah was erected in Bijapur. Measuring 135 feet square, the Mausoleum is roofed over by the biggest single dome of the world and recalls in many of its striking features, particularly the entresol gallery at the base of the dome in the interior, the Tomb of Isma'il at Bukhara.[9]

The square domed type of mosque in pre-Mughal Bengal is conspicuous by the absence of any courtyard. Incessant rain and inclement weather of the terraqueous country like Bengal led to the development of enclosed variety of mosques, which stand in sharp contrast to the open pillared and courtyard type of mosques like the Adina Masjid at Hazrat Pandua. The Mosque at Barsian near Isfahan, dated A.H. 491-528/A.D. 1098-1134, also provides an example of the completely enclosed and roofed type of mosque without the usual courtyard. Indian examples of this type are to be seen in the Kalan Masjid and the Khirki Masjid, dated 14th century A.D. erected by Firuz Shah Tughlaq, and the Jami' Masjid at Gulbarga, dated A.D. 1367. In the present state of our knowledge, it may be said that corridor appears for the first time in Bengal in the Mosque of Gopalganj, Dinajpur. It measures 12 feet square, and is dated A.H. 865/A.D. 1460.[3] The corridor which is a novelty in pre-Mughal architecture of Bengal is added to the east of the square domed prayer hall, which is entered by three arched doors in the front and one from each side. The corridor later on, became a prominent architectural feature in the mosques of Bengal as exemplified by the Mosque at Masjidbari, Bakerganj, dated A.H. 870/A.D. 1465, the Chamkatti Masjid, dated A H. 883/A.D. 1478-79, (Fig. 13 & Pl. XVII), the Rajbibi Masjid, (Fig. 15 & Pl. XVIII), dated A.H. 841-93/A.D. 1437-87, the Lattan Masjid, dated A.H. 899-925/A.D. 1493-1519, (Fig. 14 & Pl. XIX), all at Gaud, and the Mosque at Sankarpasa, Sylhet, dated 15th century A.D. Measuring 21 feet 9 inches square internally, the square domed Mosque at Masjidbari, Bakerganj, is entered by three dwarfish arched openings each from the eastern, northern and southern sides and buttressed by six octagonal corner towers. In its internal arrangements and striking features, it recalls the Lattan Masjid, whereas its single tunnel vaulted corridor stands in sharp contrast with the domed and hut-shaped or *chau-chala* roofed corridor of the Lattan Masjid and the groined and tunnel-vaulted corridor of the Chamkatti Masjid.[3]

Another interesting example of square domed and ornate mosque of the 15th century A.D. is the Mosque at Sankarpasa, Sylhet. Measuring 21 feet 5 inches square, the Mosque is an exact replica of the Mosque at Masjidbari, Bakerganj, the Chamkatti Masjid and the Rajbibi Masjid both at Gaud. The most notable features of this Mosque are the tapering octagonal towers, the multi-foiled ached entrance, moulded string-courses, exquisitely beautiful diaper works carved skilfully in brick, etc., which have already been anticipated in the earlier monuments of Gaud and elsewhere.

Either domed or vaulted, corridor is the most conspicuous feature of the Mosque at Kheraul, Murshidabad, dated A.H. 900/A.D 1494-95, Rukn Khan's Mosque at Devikot,

Dinajpur, measuring 26 feet 10 inches square, dated A.H. 918 /A.D. 1512 and the Mosque at Sura, Dinajpur, (Fig. 19) dated A.H. 899-925/A.D. 1493-1519. In its square domed prayer chamber, octagonal corner towers, *mihrab* projections in the *qibla* wall, number of arched openings in the eastern, northern and southern sides, the domed corridor, panelled mouldings, etc., the Mosque at Sura is reminiscent of the Rajbibi Masjid (Fig. 15 & Pl. XVIII). Dani observes, "The stones depict panels and other designs similar to those at the Chotto Sona Masjid".[3]

The corridor of the Mosque is the proto-type of the verandah of a thatched *do-chala* or *chau-chala* huts of any village in Bengal. Imitated from pre-Mughal examples corridor also appears in the square domed mosques of the Mughal period, the most outstanding example being the Atia Masjid, Mymensingh, dated A.D. 1609. In the Dara Begum's Tomb at Dacca (Fig. 20), dated 17th century A.D., a single vaulted corridor, similar to that in the Mosque of Masjidbari, Bakerganj, appears in the southern side, instead of at the usual eastern side.

(A) The Chamkatti Masjid at Gaud
(A.H. 883/A.D. 1478)

The Chamkatti Masjid (Fig. 13 & Pl. XVII), the Rajbibi Masjid (Fig. 15 & Pl. XVIII) and the Lattan Masjid (Fig. 14 & Pls. XIX-XX), form a closely connected group since

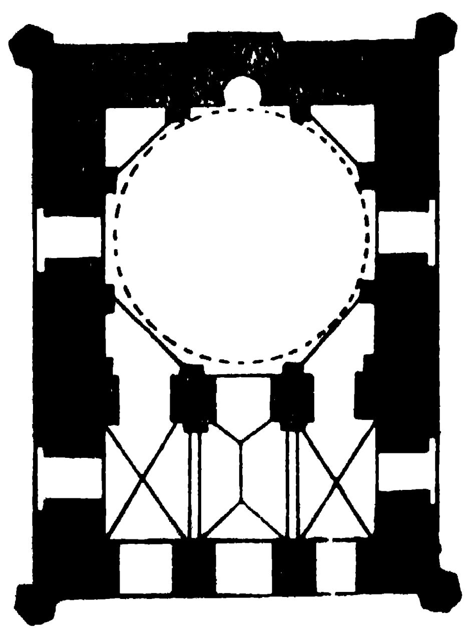


Fig. 13. Gaud : The Chamkatti Masjid : ground plan

they are all domed and all square in plan. The Chamkatti Masjid stands on the western side of the Dinajpur road a little to the east of the Lukachuri gate which forms the eastern entrance of the Citadel of Gaud. As its name indicates, the Masjid is peculiarly associated with a group of mendicants who habitually inflicted tortures on themselves, and therefore, are known as Chamkattis or skin-cutters.[10] Marshall calls the Chamkatti Masjid "Chamkhan".[8]

It is believed by some authors that Yusuf Shah built this mosque in honour of a renowned *faqir* who performed before him.[10] This ruling prince made a reputation for himself as a virtuous and just ruler; he prohibited wine and built three mosques at Gaud, namely, this Chamkatti Masjid (A.H. 883/A.D. 1478), the Darasbari Masjid (A.H. 884/A.D. 1479) and the Tantipara Masjid (A.H. 885/A.D. 1480).[11] They all bear inscriptions. However, they are not all of the same type, architecturally.

An idea of the structural detail as well as the rich ornamentation of the Chamkatti Masjid can easily be obtained from the painting done by Creighton in 1801-7 which appears in his well-known book of engravings.[10] Strangely enough, no notice was taken of it by other early visitors and archaeologists, such as Orme, Daniell, Prasad, Francklin, Buchanan and Ravenshaw.[12] Ilahi Bakhsh, however, refers to it incidentally, without giving details of its architectural features.[13]

In general plan, the Chamkatti Masjid is a cubical building with an inner chamber, measuring 23 feet 8 inches each way internally. It was buttressed in the usual fashion

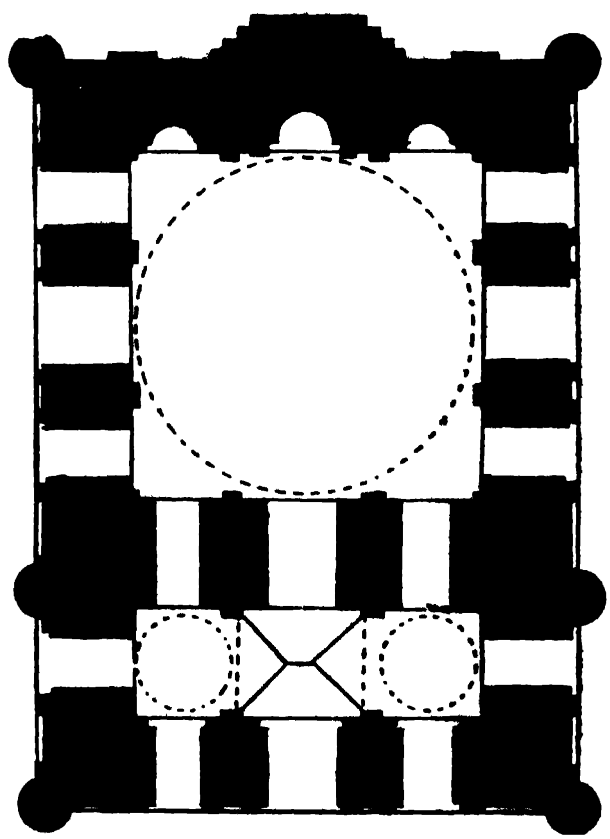


Fig. 14. Gaud : The Lattan Masjid : ground plan

by four octagonal corner towers with moulded string-courses though all these are now in disrepair. The interior is also much damaged. It seems that its brick walls were faced with stone as at the Adina Masjid, but the facing is almost damaged. The shoulders of the dome are also in ruins. Stone must have been used also for the internal facing of the brick core. The total dimensions of the building are 50 feet 4 inches long

by 33 feet 8 inches broad. Its walls are pierced on the north and the south by pointed arched openings.[14]

The transition from the squar base of the dome to the octagon is attained by an arched squinch at each corner. These squinches are constructed of small burnt red bricks in five or possibly six courses which are still visible externally. The octagonal base of the dome supports a 16-sided gallery, a small stone pilaster being placed at each corner of the polygon. Here the builders achieved a domical construction without resorting to the octagon. Unlike the plain sheet dome of the latter, the Chamkatti Masjid has a dome of peculiar shape with three clearly marked outer receeding stages. It is coated with a thick layer of plaster.

The Chamkatti Masjid marks a considerable departure from the square plan initiated by the Eklakhi tomb (Fig. 11 & Pl. XVI), by the addition of a verandah in front of the *liwan* on the east. This oblong verandah measures 9 feet 11 inches wide. It is provided with three pointed arched openings, formed by successive courses of brick voussoirs. These arches spring from oblong brick piers placed east and west. The arches are recessed, similar to those found in the *liwan* of the Adina Masjid. There are also two arched openings on the northern and southern ends of the verandah. The hanging chain and bell motif predominates in the decoration of the facade.

'Abid 'Ali says that the roof of the verandah shows "a peculiar form of vaulting". Between the piers of the Mosque proper and those of the verandah there are three arches at right angles, which carry the roof of the verandah; from the remains of this roof, it may be presumed that the central part of the verandah was tunnel vaulted, whereas the northern and southern sides were groin vaulted. The remains of brick ribs lend support to the suggestion that the side bays of the verandah were groined. Like most of the Bengali mosques, the cornice of the Chamkatti Masjid is elliptically curved. It has also corner towers, either circular or octagonal.

The inscription of the Chamkatti Masjid, dated A.H. 883/A.D. 1478, which is republished by the author in the *Journal of the Royal Asiatic Society*, October, 1966, is reproduced in the Appendix I. (Pl. XLIIIa)

(B) The Rajbibi Masjid at Gaud
(A.H. 841-93/A.D. 1437-87)

The Rajbibi Masjid (Fig. 15 & Pl. XVIII), a small elegant building in Gaud, conforms in general plan and architectural details with the Chamkatti Masjid. Ilahi Bakhsh writes, "It is south-east of the Kotwali Gate, east of the high road, between two tanks, one of which is called Batiya (?) Dighi and the other Kahania Dighi. It is a small mosque : the people of Gaur call it Rajbibi's Mosque. It is 37 cubits long from east to west and 29 cubits broad. There is a large dome, and on the east side three small ones".[13]

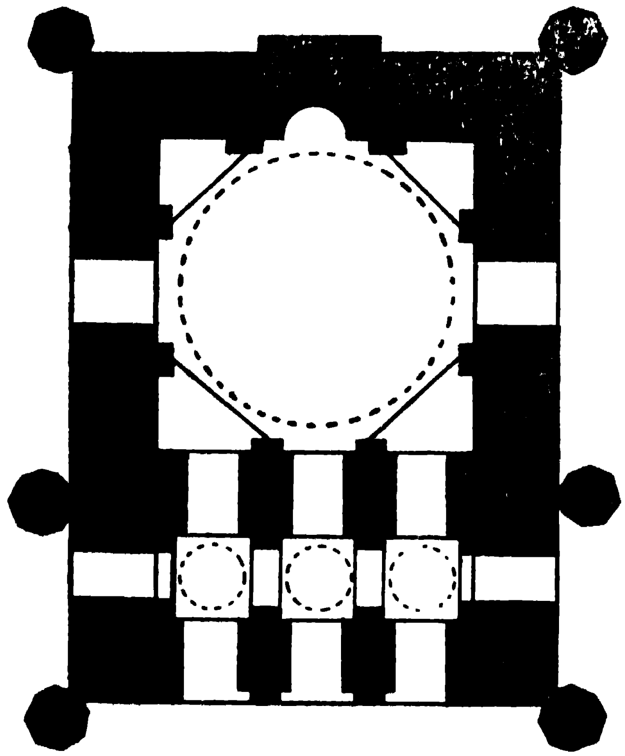


Fig. 15. Gaud : The Rajbibi Masjid : ground plan

Literally Rajbibi means Royal (*Raj*) Lady (*Bibi*). Presumably it was built by a prominent member of the Harem of the Bengali Sultans.[16] 'Abid 'Ali wrongly identifies the Rajbibi Masjid with the Dhunichak Masjid, situated in Mahdipur, whereas Dani describes it under the appellation of Khania Dighi mosque, ostensibly because of its situation near the bank of the said tank.[3] In fact no such mosque under the appellation of Khania Dighi ever existed, as there is no mention in the complete *Revised List of Ancient Monuments of Bengal*, 1886.[16]

According to 'Abid 'Ali and Dani, the Rajbibi Mosque measures 62 feet by 42 feet. The central square chamber is 28 feet square. The pointed central dome of the main square hall of this Masjid is still visible, though in ruins. It has three *mihrab* niches in the western *qibla* wall. The mosque is entered from the east by three arched openings and there are two other doors on the north and the south sides.

In the present state of its ruins, it is difficult to say whether there was a verandah on the eastern front of the mosque; excavation, when carried out, should reveal the answer. As regards decoration, Dani says, a part of the ornamentation at the southern cornice is still preserved. We have here three rows of decoration between the cornice mouldings—the chain at the lowest and a series of niches with flowers in the upper two—the same system of decoration as seen for the first time in the Eklakhi tomb. Down below we also get separate panels with hanging motifs. The detail and the plan agree very well with the style seen in the second Ilyas Shahi period.[3]

The date of the Rajbibi Masjid cannot be ascertained as no inscription has been assigned to it. Typologically, this elegantly planned mosque cannot be earlier than the

Chamkatti Masjid which in many of its features seems to have served as its model. It may, therefore, be placed between the early Ilyas Shahi period and the Husain Shahi period— that is, during the period of the restored Ilyas Shahi dynasty who ruled from A.H. 841-893, corresponding to A.D. 1437-87.

(C) The Lattan Masjid at Gaud
(A.H. 899-925/A.D.1493-1519)

Chambers says, "To the southward, about half a mile beyond the obelisk (Firuza Minar), is the Nuttee Musjeed by some Europeans termed the China mosque from the bricks of which it is built being ornamented with various colours"[17]. Prasad erroneously places this mosque (Fig. 14 & Pls. XIX—XX) in the middle of the Citadel of Gaud. In point of fact, it is situated 4 miles north of Gaud Thana after crossing the Bhagirathi on the right side of the Nawabganj road, between the Tantipara Masjid and the Five-Arched bridge.[12]

Francklin says, "This elegant mosque is said to have been erected by a Nuttin or dancing girl. Once perhaps the favourite of her sovereign who to make amends of the liberties of her former life, erected and endowed this temple as a compensation. Whatever cause may have given rise to the circumstance, it must be acknowledged, by any who viewed it even in its present ruinous state to have been "a building of much taste and even splendour".[40]

Chambers maintains that the building in question served the purposes of amusement, and refers to the domed vestibule in front of the square domed chamber as the eunuch's residence.[17] Ilahi Bakhsh seems to have supported the views by Francklin and Chambers, although he described the building as "the Lattonki Masjid".[13]

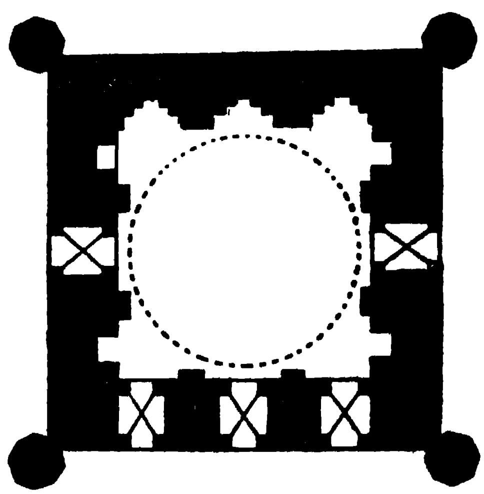


Fig. 16. Goaldi (Dacca) : The Mosque : ground plan

Even Cunningham believed in this tradition, when he called the building Nattan Masjid, which he says was so named after Nattu—a favourite harem dancing girl.[14]

R. K. Chakravarti, however, extends the legend by stating that the personal name of Nutti or Nuttu was Mira Bai who lived in the Mira Taluq.[10] 'Abid 'Ali suggests that

the same dancing girl concealed her name and put the King's name in the record. One of the meanings of the word Nutti is a "tumbler pigeon", and the girl may well have been an acrobatic dancer. The term Nuttin gradually corrupted into Laton or Lotan (Lottan or Lattan).[19]

Dancing girls were, indeed, kept for the amusement of the Sultans, as we know that Sultan Ghiyas-ud-din 'Azam Shah had three favourite harem girls, named the Rose, the Tulip and the Cypress.[15] It is curious in this connection that edifices erected by the Ladies of the Royal court are very rare, though there is the Jahaniyan Mosque (A.H. 941/A.D. 1534-35), built by "Bua Malti" or Sister Malti and the mosque of Binat Bibi (A.H. 861/A.D. 1456) at Dacca.[2]

Local traditions relating to the existing monuments of Gaud and Hazrat Pandua are also current in connection with the Tantipara Masjid, the Chamkatti Masjid and the Dhunichak Masjid, none of which, however, retained their original appellations. The names they bear are of very recent origin, and derive from the particular localities where they were situated. These localities would seem to be well-demarcated Mahallas or areas, inhabited by different guilds or classes of people, pursuing different professions, such as the *Tanti* or weavers, *Dhuni* or cotton carders, etc. The Chamkatti Masjid as well as the Lattan Masjid have peculiar associations with groups of mendicants and dancers respectively. The origin of the appellation of the Lattan Masjid may, therefore, be reasonably sought beyond the local legends which are usually quoted.

Creighton writes, "This beautiful Edifice appears to have obtained the epithet of painted (*cini*) from its walls being cased, both inside and out, with glazed bricks, wrought in different patterns and coloured blue, green and white".[10] Ravenshaw corroborates Creighton in regarding the monument as the "Painted mosque".[12] Chambers, also, reports that some European explorers and travellers have termed the edifice as the "China Mosque from the bricks of which it is built, being ornamented with various colour".[17]

However, Bloch has set at rest the whole controversy as to the correct appellation of the Lattan Masjid by his thoughtful criticism, when he says, "I may mention in passing that the modern name of this mosque, Latan Masjid, generally has been explained as the 'Dancing Girl's Mosque' and that the word Latan has been taken as a corruption of the Bengali word for 'dancing girl', Natin—in Sanskrit *nati*. I am quite willing to accept this explanation, but I very much doubt if it really means that the mosque was built by a dancing girl. From ancient Indian inscriptions we certainly know of several instances where 'dancing girls', or any other women of a similar class, called *Ganika* in Sanskrit, joined with Buddhist monks or nuns, and with respectable laymen and laywomen, in adoring a sacred Stupa or temple of their religion. [At Badami, there is a small temple, dedicated by female garland maker. However, I entertain grave doubts if the Maulavis, Imams and Khadims, even at the capital of the Muhammadan Kingdom of Bengal, ever would have designed to accept the gift of a mosque,

if it came from a dancing girl, although she might have been some sort of an ancient *dame aux camelias*, who, with the approach of old age, might have repented, and expressed a desire to atone for her former life, by some kind of meritorious work like the building of a mosque. Even if we accept such a theory, I am afraid we are laying too much stress on a name which we owe merely to the modern tradition current among the ignorant peasants, who now live at the site of the ancient capital of Bengal. Another explanation of the word Latan Masjid has occured to me, to which I feel very much inclined to give the preference. I accept the current interpretation of the word Latan as corruption of the Bengali word Natin (Sanskrit *nati*), 'a dancing girl'. But the mosque received this name not because it was built by a dancing girl, but on account of its gaudy appearance, both inside and outside, decked all over with glazed tiles in bright colours, such as white and blue, green and yellow. The mosque itself, on that account, suggested to the ignorant peasants of modern Gaur the idea of a dancing girl—covered with bright garments and glittering jewels, and the name Latan Masjid thus really means 'the mosque, which resembles a dancing girl', and not the 'dancing girl's mosque' ".[20]

The plan of the Lattan Masjid follows the established square plan of the Bengali mosques, initiated by the Eklakhi tomb and repeated in the Chamkatti Masjid, the Mosque at Kheraul in Murshidabad and Rukn Khan's Mosque at Devikot in Dinajpur, to which reference has been made earlier. The entire building is 72½ feet long and 51 feet broad outside. The central square prayer chamber is 34 feet square.[14] It is roofed by a hemispherical dome (Pl. XIX). According to Francklin, the Lattan Masjid is crowned by a "Syrian" roof, but this description of it is obscure. He may have meant by this a gable roof— referring to the gable ends of the *do-chala* style.

Chambers observes of this mosque, "So spacious and lofty a room, without a pillar beam or rafter is a real curiosity and when the antiquity of the building, the smallness of the bricks which compose it, and its present high state of preservation are considered, it seems evident that the art of building, as far as durability is considered, was far better than is indicated now by any modern edifice in the metropolis of India".[17] The dome of the Lattan Masjid certainly shows the builder's skill and technical knowledge. Since it has arched squinches, the Lattan Maijsd is typologically akin to the Chamkatti Masjid. Saraswati says, "Still more commendable is the construction of the massive dome, which is provided with a basement support, cylindrical outside and in the shape of a flattened vault inside. This support adds to the height and dignity of the building and also in the way of organic beauty, which is unfortunately lacking in most of the buildings of this kind in Bengal".[21]

The most striking feature in the construction of the dome is the absence of an octagonal base, as is generally met with in the Tughlaq tombs—such as the Tomb of Ghiyas-ud-din Tughlaq (A.H. 725/A.D. 1325).[8] The dome rests on a polygonal base with ornamental parapets. The spandrels between the arched frames of the side walls and the squinches are filled with brick stalactite pendentives.[14] There are moulded string-courses round the base of the dome, and lotus designs on the decorated parapets. The

interior of the dome is raised in three distinct stages and has 8 vertical projecting ribs. Elegantly designed bell and chain motifs appear between the ribs. There is a lotus pendant hanging down from the crown of the dome (Pl. XXI) This building is of remarkable height, measuring approximately 50 feet internally and 70 feet externally.[27]

The *qibla* wall has three semi-circular niches, the central one being bigger than the side ones. These are all encrusted with glazed tiles. The *mihrab* to the north of the central niche has fragments of Hindu sculpture built into it. There is a buttressed projection standing out on the outside of the *qibla* wall (Pl. XX). The central prayer hall is entered by three arched openings from the eastern verandah. There are also three doorways on both the northern and the southern sides.

The verandah (Pl. XIX) on the eastern side measures 34 feet long by 11 feet wide and 35 feet in height.[22] It is pierced with three openings on the east and one each at the sides. The central arched opening in the verandah measures 6 feet 11 inches in span, the side ones being 5 feet 5 inches and the end ones 4 feet 9½ inches.[14] Cunningham's view that the verandah was roofed over by 3 domes cannot be accepted as there is a Bengali *chau-chala* hut-shaped roof over the central bay of the verandah.[23] The absence of brick stalactite pendentive lends further support to this view.

Like most of the Bengali mosques, the Lattan Masjid is provided with four circular corner towers (Pl. XX). There are, however, in this building two additional towers at the corners of the verandah. These towers are fluted, the fluting being formed of small round bricks placed vertically one upon the other. This striking feature also appears in the corner towers of the Adina Masjid as well as in the flanking buttresses of the Gumti Gate (A.H. 918/A.D. 1512).[24] The curvilinear cornice, which is characteristic of Bengali architecture, also appears in this mosque. This distinctive feature recalls the curved roof of Bengali huts, which so captivated the fancy of the Mughal emperors that they caused "Bengali" pavilions to be erected, as pleasure-houses, in the Forts of Agra and Lahore; and the curved cornice similarly found its way into the later (Shah Jahan onwards) Mughal mosque style, as in the Delhi Fort mosque, later buildings at the shrine of Mu'in-ud-din Chishti at Ajmer, etc. In Bengal itself this feature is not confined to Muslim building, as the later temples show it clearly.

The use of small bricks seems to have gained universal practice in the Lattan Masjid. Chambers observes, "The outer walls, nine feet in thickness, are formed of bricks, extremely small, not exceeding four inches in length, three in breadth and an inch and a half in thickness but the bricks are so well made and the cement is so firm that the building has almost the solidity of stone".[25]

Cunningham compares the Lattan Masjid with the Chamkatti Masjid as being built on exactly the same plan. He writes, "Both are square rooms covered by a single dome with a verandah or corridor in front".[14] The differences between the two are no less striking. The Lattan Masjid has 3 *mihrabs* with 3 arched openings at each

side; the Chamkatti Masjid has only one central niche with an opening at each side. Both Cunningham and Marshall[8] accept Creighton's[10] suggestion that the Lattan Masjid was built in the year A.H. 880/A.D 1475. Cunningham writes, "......though he [Creighton[says nothing about any inscription I feel satisfied that he must have seen one, either attached to the building, or lying somewhere near it, and has forgotten to quote it, as he is always very careful to note his authorities for the dates which he gives. At the time of Francklin's visit the inscription had certainly been removed. The vacant panel in which it was fixed over the middle doorway is 6 feet 6½ inches in length by 1 foot 11½ inches in height, which I record here in the hope that some day the inscribed slab belonging to the Masjid may thereby be identified".[14] The date of the inscription referred to by Creighton and Francklin, now in the British Museum has been corrected to A.H. 883, and has already been assigned to the Chamkatti Masjid. The Lattan Masjid undoubtedly surpasses all the earlier monuments of Gaud and Hazrat Pandua in the exquisite ornamentation and is clearly later than that of the Chamkatti Masjid. Francklin has described the Lattan Masjid thus : "Its whole interior is adorned in the most beautiful tile work of variegated colours; consisting of very dark blue, yellow, green and white tiles, resembling marble, eight double minarets, made of bricks and incrusted with variegated tile work of fanciful architecture......I have not myself met with anything superior to it either for elegance of style, lightness in construction, or tasteful decoration of ornament in any part that I have visited in Upper Hindustan."[12] However, Cunningham maintains a different view when he says, "surely this is the very poorest, the most primitive, and the most tasteless style of ornamentation that could be imagined; nothing but plain horizontal stripes repeated till the eye is fatigued with their niggling monotony......"[26] He continues, "the general view of the Lattan Masjid is certainly pleasing; but for the graceful outline, beauty of ornament, and stateliness of appearance, greatly prefer the Old Minar, the Tantipara Mosque, and the Dakhil Gateway."[14] In all fairness, so far as the colour scheme, style of ornamentation and marvellous texture of these tiles now kept in the Victoria and Albert Museum, London, (Pl. XXII a—b) can be judged, the Lattan Masjid may be regarded as a gem of Muslim ornamental art in Bengal. It surpasses any other monument of Bengal in the richness and variety of glazed tile mosaics and certainly marks the zenith in the evolution of square domed type of Bengali mosques. Therefore, it may only be placed in the later phase of Muslim rule in Bengal. Dani criticizes Cunningham's opinion that the Lattan Masjid was built in the reign of Yusuf Shah (A.H. 879—886/A.D 1474—84) rather than of Husain Shah (A.H. 889-925/A.D 1493—1519). As he says, "Cunningham only failed to see that the difference between the Lattan Masjid and the other group of buildings lies not merely in architectural beauty but in their very character. They are products of two different periods, when different ideals of beauty governed the life of man. Dakhil and Tantipara are the products of one period, while the Lattan represents the conception of another period, which was saturated with richness and dazzling effect of prosperity. It truly bears the stamp of the Husain Shahi age".[3] This dating is undoubtedly correct.

NOTES AND REFERENCES

1. Chakravarti, M. M., *Pre-Mughal Mosques of Bengal*, *JASB*, vol. V.,N.S., Jan, 1910, (Figs. 3,4).
2. 'Abid' Ali Khan, *Memoirs of Gaur and Pandua*, edited by H. Stapleton, Calcutta, 1931.
3. MAB.
4. Spooner, D.B., *AR.*, *ASI*, *Eastern Circle*, 1910-11.
5. Creswell, K.A.C., *A Short Account of Early Muslim Architecture*, Pelican book, 1958.
6. Wilber, D.N., *The Architecture of Islamic Iran, Il-Khanid Period*, Princeton, 1955.
7. *SPA*, vol, II.
8. *CHI*, vol. III.
9. Brown, P., *Indian Architecture* (*Islamic Period*), Bombay, 1964.
10. Creighton, H., *The Ruins of Gaur*, described and represented in eighteen views with a topographical map, RAS, copy, London, 1817, pl. XV; See also *ASR*, vol. XV; Chakravarti, R.K., *Gaurer Itihas*, *Musalman Rajattakal*, vol. II, Malda, 1909, published by Abid' 'Ali Khan; Chowdhury, J.N., *Gour-o-Pandua*, Calcutta, 1328 BS/1922 A.D.; 'Abid' Ali reports that there lived in Chalispara area, near Old Malda, a class of Muslim people, known as Chamkatti.
11. Hasan, S.M., *Two Bengal Inscriptions in the collection of the British Museum*, *J.R.A.S.*. Oct. 1966.
12. Orme, *Gowre: Description of its Ruins with four inscriptions taken in the Arabic*, IOL, Orme MS. 65-25, published in *A Report on the District of Rungpore* by E. Glazier, Calcutta, 1873. It is cited by Stapleton in his edition of 'Abid' Ali's *Memoirs*; *The Daniells in India*, in *BPP*, vol. XXV, Part I, series No. 49, Jan, by H.E.A. Cotton; Francklin, *Ruins of Gaur*, 1810-12, IOL, MS 19, this MS description has not only been quoted by A. Grote in his annotation of Ravenshaw's expensive volume *Gaur : its Ruins and inscriptions*, London, 1878, but also by the Government of Eastern Bengal and Assam, 30th May, 1910 : Buchanan (Martin), vols. II and III, London, 1838; also his *Account of Dinajpur*, IOL, MSS D. 71, vol. I.
13. Ilahi Bakhsh, *The Khurshid-i-Jahan Numa*, edited and translated by H. Beveridge, in *JASB*, vol. LXIV, part I.
14. *ASR*, *XV*.
15. Buchanan (Martin), vol. II, Pl. III. The appellation *EK* (one) *Lukkhi* (Lakh, meaning lac, 100,000) propably indicates the expenses incurred in the construction of this building (Salim, G.H. *Riyazu-s-Salatin*, edited and translated by Salam, A., *BI*, Calcutta, 1904) Although Buchanan, Fergusson and Cunningham regarded it as a tomb, Ravenshaw erroneously described the building as a mosque.
16. King, L.B.B., A Letter from Mr. L.B.B. King, officiating collector of Maldah to the Government of Bengal, dated 29th March, 1875; on *the present state of the ruins of Gaur*, in *JASB*, 1875. See also *Revised List of Ancient Monuments in Bengal*, 1886.
17. Chambers in *Fanny Parke*, *Wandering of a Pilgrim in search of the picturesque during four and twenty years in the East with Revelations of life in the Zenana*, *vol.* II, London, 1850. She visited the ancient site of Gaud in December 7th, 1836 and refers to one Mr. Chambers, an Indigo planter who, she says, lived at Gaud for 36 years. She gives extracts from his unpublished Manuscript : *The Ruins of Gaur*.
18. Shyam Prasad, *Ahwal Gaur wa Pandua*, (Dani's edition).
19. Maitra, A.K., *Ancient Monuments of Varendra*, Rajshahi, See also f.n. 2.

20. Bloch., T.,*AR.*, *ASI*, *EI*, 1902-4; Creighton (Pl. IX) describes the building as the 'Painted Mosque'. Likewise Chambers says that European visitors call it 'the China Mosque'.

21. Sarasawati, S.K., *Indo-Muslim Architecture in Bengal*, in *JISOA*,, vol. IX, 1941.

22. Cunningham corrects Francklin : "I have been thus particular in stating the measurements of the different parts of this mosque for the purpose of correcting the crowd of errors in Francklin's description which is quoted by Mr. Grote in Ravanshaw's Gaur. Thus the verandah, which is 34 feet long by 11 feet broad is said to be 50 feet long by 36 feet broad, while the main rooms of the mosque is said to be 36 feet square, so that the verandah is larger than the mosque itself. Again, the whole building is said to be 60 feet broad instead of 51 feet, while the diameter of the dome is also made 60 feet, so that the edge of the dome itself would have been flush with the outer face of the building, while the dome itself would have been half the difference between 60 and 36 feet, that is, exactly 12 feet in thickness. Further, as he makes the summit of the cupola only 40 feet in height and the semi-diameter 30 feet, the spring of the dome would have been only 10 feet above the ground, while the height of the verandah is said to be 35 feet."

23. Dani rejecting the views of Cunningham (f.n. 14) writes, "The battlements and cornice are very gently curved, above which rise the three domes of the verandah and a large one over the central room. The middle dome of the verandah is of the *chau-chala* roof type. Both Saraswati (f.n.20) and Chakravarti, M.M. (f.n. 1) erroneously state that there were three small domes on the corridor.

24. Although Creighton's painting of the Gumti gate does not show fluted columns (Pl. X), Dani, (MAB) Pl. XXVII clearly displays this feature. Incidentally, Creighton painted a small gateway covered with a dome which agrees architecturally with the Gumti Gate.

25. f. n. 17; Cunningham says that the two side walls of the mosque and the front wall of the verandah are each 8½ feet thick, but the front and back walls of the main room are 10 feet 7 inches. (f.n.14)

26. f.n. 14. Cunningham is supported by Marshall, who writes, "It misses the picturesque and imaginative colouring of the tile enamelled buildings of Persia, and equally it misses the charm of reticence and restraint which characterise the use of coloured tilework at Multan and Delhi". (f.n. 8). These remarks are hardly justified, as rightly pointed out by Dani (MAB).

III OBLONG MULTI-DOMED TYPE

THE oblong multi-domed type of pre-Mughal mosques is marked by typical architectural features, namely, rectangular plan, aisles, bays, hemispherical domes, pointed arched entrance, curved cornice, corner towers, panelled walls, stone casing, *jali* windows, stucco and glazed tiles, stone chiselling, etc.[1]

Saraswati in his article in the *Journal of the Indian Society of Oriental Art*, elaborates the characteristics of this type, already outlined by M.M. Chakravarti. The multi-domed type, as he puts it, "is characterised by an oblong structure, which is divided into several aisles by rows of pillars, supporting the arches of the domes, and cut into a number of prayer niches in the back wall and arched openings in the front. The roof consists of successive rows of low and small domes, their number depending on the number of interspaces formed by the division of the building into bays and aisles. As usual in Bengal, curved cornices and polygonal turrets are also characteristic elements of such structure".[2] Unlike the vaulted and domed type of Bengali mosques,[3] the central nave is conspicuous by its absence. The verandah which, as we have seen, was a dominating feature in the square domed type,[4] also disappears in the unvaulted rectangular type, discussed below.

The striking mosques of this variety are classified into several groups, according to the number of aisles and corridor :

(i) single aisle without corridor

(A) The Dhunichak Masjid at Gaud

(A.H. 941-93/A.D. 1437-87)

The Dhunichak Masjid (Fig. 23 & Pl. XXIII) which stands in the Mahdipur area[5] of Gaud owes its appellation to the locality inhabited by the *Dhunis* or cotton carders. Lambourne ascribes the "Dhanchak" Mosque to Dhanpat Saudagar, brother of Chand Saudagar, who flourished in the 16th century at Gaud during the reign of Husain Shah. This can hardly be true because the site does not appear in the city plan given by Cunningham and furthermore, the Mosque sylistically belongs to the period of the restored Ilyas Shahi dynasty.[6] Ilahi Bakhsh says, "It has three domes. Near this Mosque, on the northside, I saw a very small ruined building. Perhaps it was the tomb of the builder of the Mosque and of his family."[7] In the *Revised List of the Ancient Monuments of Bengal*, 1887, it is described thus "An old front of this Mosque with 31 columns is now existing. The inner ornamentation comprises carved and coloured bricks".[5] It is presumed that the Dhunichak Masjid follows the rectangular plan already seen in the Tantipara Masjid. It is hard to say whether there was any corridor on the eastern front of the Masjid. The Mosque is, indeed, almost completely ruined; excavation on the site would doubtless enable more detail to be reconstructed.

Presumably the Dhunichak Masjid served as a protoypc of the single aisled, oblong and tripe-domed mosques of the Mughal period in Sherpur, Bogra, namely, the Kherua Mosque dated A.H. 989/A.D. 1582, and the Khondokartola Masjid, dated A.H. 1042/A.D. 1632.[8] Dani considers the typical oblong single aisled plan as the usual form of Mosque architecture during the Mughal period as exemplified by the Lalbagh Mosque, The mosque of Khawaja Shahbaz, the Satgumbad (in fact, three-domed) Mosque, which were all built in Dacca and Bibi Marium's Mosque at Narayanganj in the later half of the 17th century A.D.

(ii) double aisle without corridor

Some of the interesting mosques of pre-Mughal Bengal are stylistically grouped into double aisled type without corridor as illustrated by the following 10-domed variety of Mosques :

(1) The Mosque of Zafar Khan at Tribeni, Hughli

(2) The Tantipara Masjid at Gaud

(3) The Ruined Mosque of Firuz Shah II at Guamalti, Gaud

(4) The Mosque at Bagha, Rajshahi

The 6-domed type of Mosques is demonstrated by :

(1) The Mosque of Baba Adam at Rampal, Dacca

(2) The Mosque at Sailkuppa, Jessore

(3) Jalaluddin's Mosque at Satgaon, Hughli, and

(4) The Jahaniyan Mosque, Gaud

The most striking of the 10-domed variety of multi-domed oblong mosque is the Mosque of Zafar Khan, which is the earliest surviving Muslim building in Bengal far anterior to any monument at Gaud and Hazrat Pandua.[9] It is dated A.H. 698/A.D. 1298. No less attractive than the Mosque of Zafar Khan at Tribeni, Hughli, are the Tantipara Masjid at Gaud (Fig. 22 & Pl. XXV), dated A.H. 885/A.D. 1480, the Ruined Mosque of Firuz Shah II also at Gaud (Fig. 21), dated A.H. 894/A.D. 1489 and the Mosque at Bagha (Pl. XXX), Rajshahi, dated A.H. 930/A.D. 1523. The most interesting of the 6-domed type of mosques which were built simultaneously with those of the 10-domed mosques in the different parts of Bengal are the Mosque of Baba Adam (Fig. 17) at Rampal, Dacca, dated A.H. 888/A.D. 1483 and the Jahaniyan Mosque at Gaud (Fig. 25), dated A.H. 941/A.D. 1535.[1]

(B) The Mosque of Zafar Khan at Tribeni, Hughli

(A.H. 698/A.D. 1298)

The formative phase of Muslim architecture in Bengal began in the later part of the 13th century in the monuments of the newly conquered regions of Tribeni, Chhoto

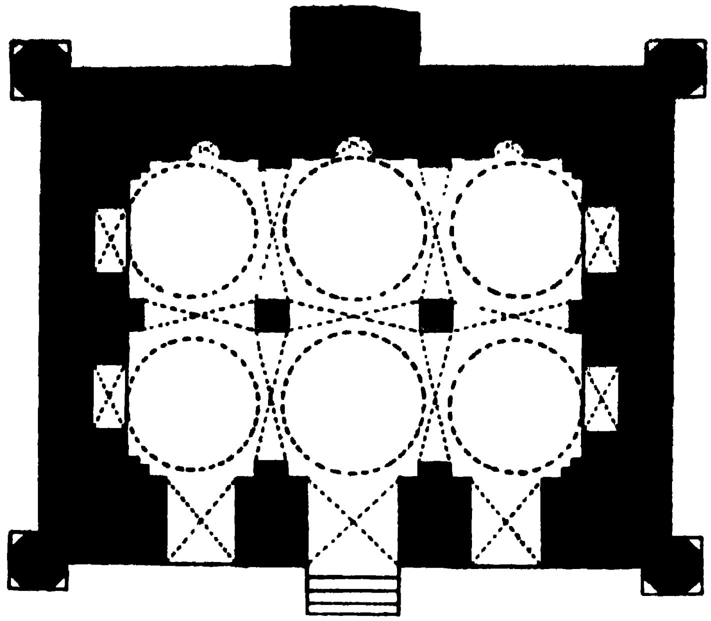


Fig. 17. Rampal (Dacca) : The Mosque of Baba Adam : ground plan

Pandua and Satgaon in the district of Hughli.[10] Tribeni, an important centre of Hindu culture was conquered by Zafar Khan, who according to an inscription dated A.H. 698/A.D. 1298. "...destroyed the obdurate among the infidels with his sword and spear......" Zafar Khan Ghazi was the military commander of the region during the governorship of Ruknuddin Kaikaus (A.D. 1292-1302).[9]

The Mosque of Zafar Khan Ghazi is the earliest known example of Mosque architecture in Bengal, and "is certainly the oldest in Bengal far anterior to any building at Gaud and Hazrat Pandua". Marking the earliest phase of Muslim building activities, it incorporates fragments of non-Muslim monuments, like those of the Quwwat al-Islam Mosque in Delhi. R.D. Banerjee is of opinion that "the Mosque of Tribeni was most probably a Vaishnava temple but relics of Buddhism and Jainism were found".[11] Remarking on the tomb of Zafar Khan, D. Money says that it has become customary to describe it as a temple.[12] It would be, however, far-fetched to maintain that Zafar Khan's Mosque is just an improvisation like his tomb. As a matter of fact the Mosque betrays all the chracteristic features of an oblong multi-domed type without any corridor, the earliest of the type in Bengal, with all the rudimentary elements of a congregational place of prayer. A.H. Dani similarly doubts the authenticity of Money's statement by observing "how the existing two square rooms standing side by side on the same plinth could have served the plan of a temple.[8] M.M. Chakravarti considers the present structure as original, though S. K. Saraswati dates the Mosque from the later part of the 15th century on the basis of its oblong ground plan, and P. Brown from the beginning of the 16th century.[2] As Dani contends, 'While the restorer's hand is definitely marked in the

high dome, the assembled ornamental pieces in the mihrab and the dressed arches, it will be too much if we attribute the entire structure to a later period. If we are to judge from a later Muslim practice, the original plan is hardly altered by the restorer, though he may make additions."[8]

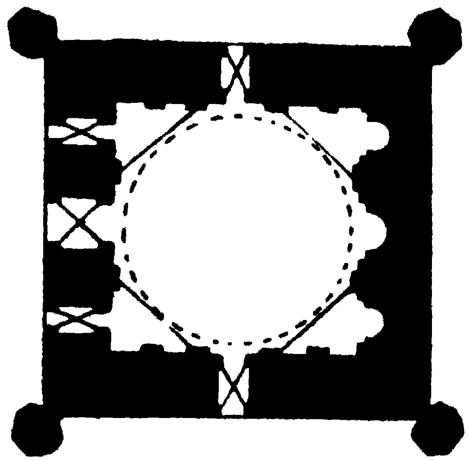


Fig. 18. Chotto Pandua (Hughli) : The Mosque of Shah Shafiuddin : ground plan

The Mosque of Zafar Khan has an oblong prayer chamber, measuring 76 feet 9 inches by 34 feet 7 inches externally, which is divided into two aisles by an arcade resting on four sturdy black basalt piers. Both transverse and longitudinal arches spring from these squat heavy piers, supporting the 10 domes. In the words of Blochmann, "The low basalt pillars supporting the arches are unusually thick, and the domes as in the Pandua (Malda) mosque, are built of bricks, of successive rings of stones, the diameter of each layer being somewhat less than that of the layer below, the whole being capped by a circular stone, covering the small remaining aperture."[9] The transition from the square spaces to the circle of the dome is attained by corbelled pendentives, like those of the Jami Masjid at Chhoto Pandua, Hughli. Unmistakable Hindu workmanship is evident in the mutilated figures in some of the architectural fragments used-a phenomenon to be observed in the Adina Masjid at Hazrat Pandua, dated A.H. 776/A.D. 1374. There are five *mihrabs* in the *qibla* wall, the most striking being the central one. Tastefully carved multifoil brick arch of the central *mihrab* is supported by slender stone pillars of some Hindu temple. The predominant motif of terracotta art in the *mihrab* is an interwoven and swinging creeper imitated undoubtedly from the luxurious plant life of Bengal. The *qibla* wall is beautifully decorated by well-proportioned rectangular panels neatly carved with floral designs.

The Mosque of Zafar Khan is entered by five pointed arched brick doorways in the eastern side. The most curious feature in the facade is the stumpy hexagonal piers, from which spring the arches of the doorway. Here both the stones and bricks have

been judiciously used, stone being employed for casing. Though the domes betray Hindu workmanship for the application of horizontal courses of bricks, the doorways demonstrate true or voussoir arch of unmistakable Muslim workmanship. The corbelled dome is a very popular form of Hindu architecture, which also appears in the Quwwat al-Islam Mosque at Delhi.[13] In this method successive rings of brick or stone, the diameter of each layer being somewhat less than that of the layer below, are finally capped by a stone. There are also two side entrances in the northern and the southern sides.

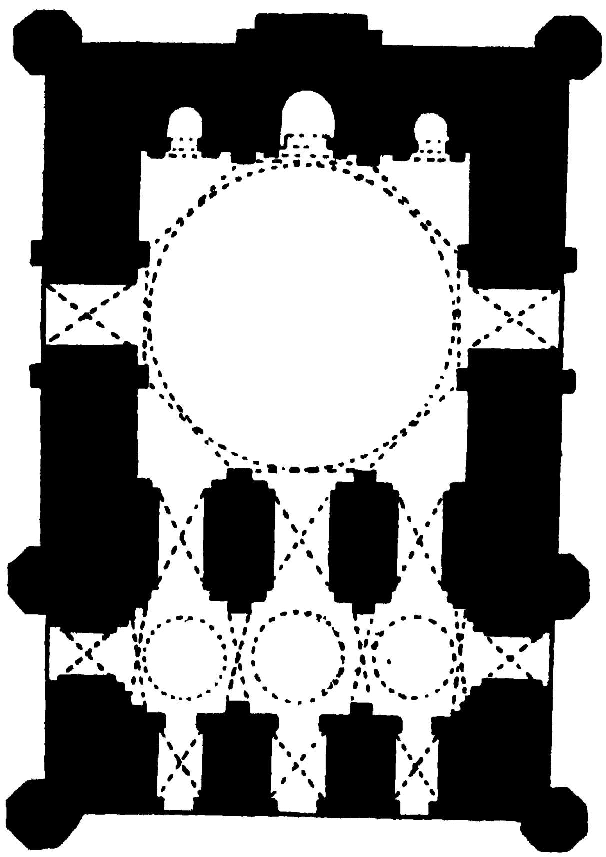


Fig. 19. Sura (Dinajpur) : The Mosque : ground plan

The Mosque of Zafar Khan is the enclosed type of Bengal Mosque, which is conspicuous by the absence of any courtyard, fountain and minaret, corner towers, etc. It is the prototype of the later oblong multi-domed mosques of Bengal, notably, the Jami' Masjid at Chhoto Pandua, the Tantipara Mosque, the Ruined Mosque of Firuz Shah II, both at Gaud, and the Mosque at Bagha. The Bengal architecture, as observed by Fergusson, is essentially a brick style. Therefore, it is a misnomer to call any phase of Bengal architecture as "brick and stone" style, as done by Dani.[8] Stone was used for encasing the bare and fragile brick fabric as well as pillars and horizontal courses. It is, also, not understood how a distinctive phase of Muslim architecture as that of the pre-Sultanate period be termed as "the Mamluk Style" after Dani.[8]

when Fergusson applied the term 'Pathan"[14] to the pre-Mughal architecture of India which also encompasses the pre-Mughal phase of Bengal architecture (A.D. 1203-1538). The utilization of non-Muslim building materials is to be taken as a matter of expediency for no mosque plan was ever superimposed on the traditional ground plan of temple architecture. In the light of this phenomena the mosques can hardly be regarded as mere improvisations of existing temples, as stated by R.D. Banerjee in the case of the Mosque of Zafar Khan. The Muslim architects did not feel any scruple to employ fragments of Hindu sculpture still bearing traces of iconographical art in their mosques, and furthermore Hindu workmanship is evident in the delicate stone carvings and senuous tendrils, and corbelled domes.

(C) The Tantipara Masjid at Gaud

(A.H. 885/A.D. 1480)

The Tantipara Masjid (Fig. 22 & Pls. XXV, XXVI), is one of the earliest known examples of the oblong multi-domed type of Bengali mosques. According to Cunningham, "this mosque is the finest of all the buildings now remaining in Gaur",[15] and it is certainly carefully planned and tastefully ornamented. It stands between the small Sagar Dighi and the river Bhagirathi, which has long since receded to the east. It stands a mile to the north of the eastern wall of the Citadel on the western side of the Dinajpur road in between the Lattan Masjid and the Chamkatti Masjid.[16]

Creighton, who did a painting of the Tantipara Masjid as he found it in 1801-7, says that the mosque owes its appellation to the suburb or locality or ward where it is situated.[17] *Tanti* means weaver and *para* means ward or quarter. Francklin wrongly described this mosque as the Mahajantola Masjid.[19] No Mahajantola area appears in the city plans drawn by either Buchanan or Pemberton; cunningam and Francklin seem to have been misinformed.[20]

The Tantipara Masjid is an oblong brick building with the long sides placed north and south. It measures 78 feet by 31 feet internally and 91 feet by 44 feet externally.[21] The *liwan* is divided into two aisles by a transverse arcade, carrying 5 pointed brick arches, supported on 4 stone pillars. From these pillars also spring three arches at right angles to the facade. Although less ornate than those of the southern prayer chamber in the Adina Masjid, the Tantipara pillars have square bases, moulded bands and cubical abaci. Brown says that the pillars of this mosque are "of the square and chamfered variety originally part of a Hindu temple",[13] but this was not so. They are contemporary with the building. Certainly work of this character is known in Hindu building, and this seems to have misled Brown.

The Tantipara Masjid is roofed over by 10 small hemispherical domes. The transition from the square to the circle of the dome is attained by brick stalactite penden-

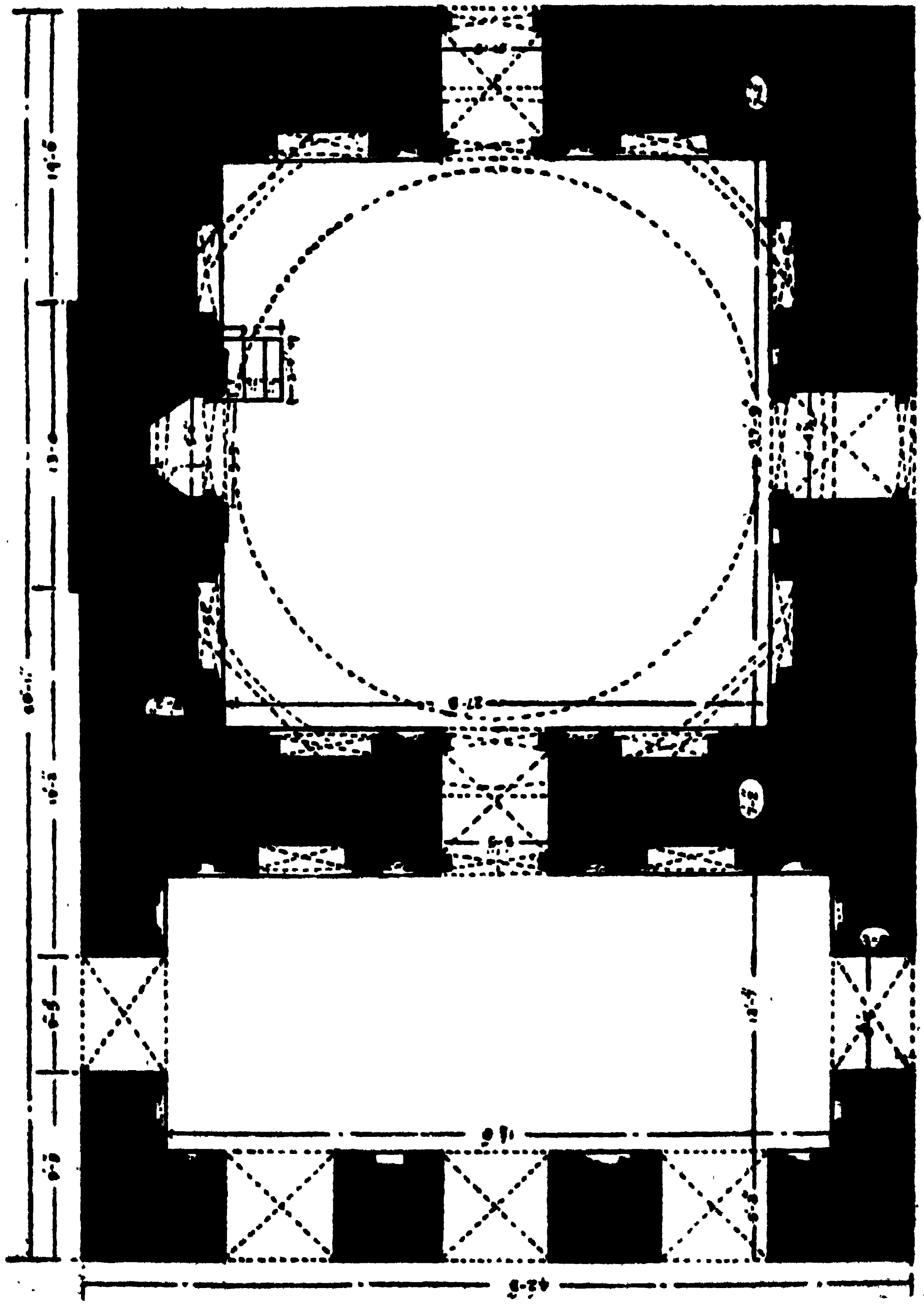


Fig. 20. Dacca : Dara Begum's so-called Tomb : ground plan

tives. The *qibla* wall has 5 pointed arched niches, semi-circular in design (Pl. XXVII). Each *mihrab* is enclosed in a rectangular frame, filled with rich stucco designs. The tympanum of each *mihrab* is also elegantly decorated. The concave niche is divided into panels with hanging bell and chain motifs surrounded by a decorative arch. The finely finished stone casing is a prominent feature of this mosque. Stone courses are added internally between the brick courses. They also appear in the Eklakhi Tomb (Pl. XVI), the Dakhil Darwaza (A.H. 841-64/A.D. 1437-59), and the Darasbari Masjid (A.H. 884/A.D. 1479) (Pl. XXXVII).[22]

As in other Bengali mosques dating from the 14th to the 16th centuries, the zenana gallery (Pl. XXXII), was the most conspicuous feature in the Tantipara Masjid. 'Abid 'Ali writes, "It is likely that the face of the wall underneath the *takht* and immediately below the northernmost *mihrab* was broken, or, if there was a *mihrab* at all beneath the *takht*, it was certainly separated from the *mihrab* above".[23] The existence of a zenana gallery is proved by the existence of a small niche in the upper part of the *qibla* wall on the northern side, just above the northernmost *mihrab*.[23] The zenana gallery is entered from the north through a porch. In place of the *Jali* or perforated windows as in the southern side, the northern wall has two small arched openings. The upper arched opening must have served as a communicating door to the zenana gallery from some kind of external entrance or porch. It is presumed that the zenana platform was high above the floor level, as in the Adina Masjid and other mosques of Gaud, and that it also had a screen. Whether the roof of the zenana gallery was higher than the rest of the mosque, as it was in the Adina Masjid, is nowhere described.

The Tantipara Masjid is entered from the east by five pointed arched entrances. Unlike the Chamkatti Masjid (Pl. XVII) and the Lattan Masjid (Pl. XIX), it has no verandah in the eastern side. The entrance arches spring from massive brick piers, oblong in plan, placed north and south. The walls are 6½ feet thick and the arched openings are the same in width.[15] The arches are tastefully ornamented with a profusion of designs, set in rectangular frames (Pl. XXVI). The small rosettes inserted into the sockets in the soffits of the arches anticipated similar features in the shrine of Qadam Rasul inside the Citadel of Gaud. On each side of the archway, the monotony of the wall is relieved

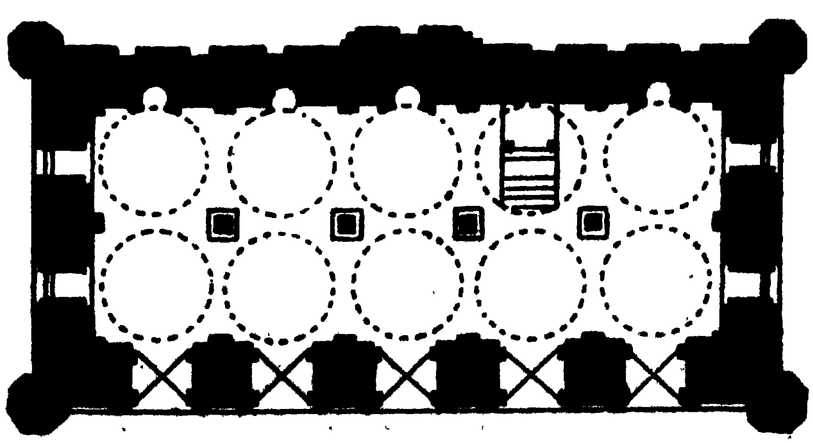


Fig. 21. Gaud : The Mosque of Firuz Shah II : ground plan

by horizontal string-courses and richly carved blind windows. The double cornice with elegant stucco designs demonstrates the characteristic curvilinear roofing of Bengal architecture.[24]

There are also two arched openings in the southern side, but only one in the northern side owing to the zenana gallery. Blind windows relieve the monotony of the otherwise bare wall, which is also richly carved in brick.

The Tantipara Masjid has four corner towers, one at each angle of the building. Plate XXV shows that they are octagonal in shape like those of the Chamkatti Masjid (Pl. XVII), which was copied later in the Chhoto Sona Masjid (Frontispiece) and the Bara Sona Masjid. In their moulded string-courses and the typical ornamental devices of the hanging chain and bell motifs, the corner towers of the Tantipara Masjid recall those of the Eklakhi Tomb (Pl. XVI), which is dated earlier. It is probable that these corner towers were originally capped by conical turrets. On the exterior of the *qibla* wall is a prominent *mihrab* buttress placed centrally. This buttress carries a little projection gracefully ornamented with stucco designs and blind arches with hanging chain-and bell motifs.

It is abundantly clear that the Tantipara mosque conforms, in layout and general architectural details, with the enclosed type of Bengal mosques, initiated in Gaud by the Chamkatti Masjid .As an oblong type of mosque, it anticipates the ruined mosque of Firuz Shah II at Guamalti at Gaud (Fig. 21), which was probably built in A.H. 894/A.D. 1489, the Jahaniyan Mosque (Fig. 25) also at Gaud 900/A.D. 1535. The Phuti Masjid at Old Malda, dated A.H. 900/A.D. 1495, demonstrates the earliest known example of a mosque verandah in the oblong multi-domed type of Bengali mosque later to appear in the Bara Sona Masjid at Gaud. The type represented by the Tantipara Masjid is to be met for the first time in the Mosque of Zafar Khan at Tribeni (A.D. 1298), Hughli and the Bari Dargah Masjid at Chhoto Pandua (A.D. 1300) also at Hughli. The multi-domed type of Bengali mosque is also represented by the following monuments :[20]

A.H. 854/A.D. 1450 : Masjidkur, Khulna : Masjid
A.H. 871/A.D. 1466-67 : Kalna, Burdwan : Majlis Sahib's Mosque
A.H. 9th century/A.D. 15th century : Kasba, Barisal : Mosque
A.H. 871/A.D. 1466-67 : Basirhat, 24 Parganas : Mosque
A.H. 888/A.D. 1483 : Rampal, Dacca : Baba Adam's Mosque (Fig. 17)
A.H. 905/A.D. 1500-1 : Hemtabad, Dinajpur : Mosque
A.H. 930/A.D. 1523-24 : Bagha, Rajshahi : Mosque (Pl. XXX)
A.H. 925 38/A.D. 1519-32 : Sailkuppa, Jessore : Mosque
A.H. 936/A.D. 1529 : Satgaon, Hughli, Mosque : of Jalal-ud-Din
A.H. 990/A.D. 1582 : Hazrat Pandua, Malda : Qutb Shah's Mosque (Fig. 26)

The inscription of the Tantipara Masjid, dated A.H. 885/A.D. 1480, which is republished by the author in the *Journal of the Royal Asiatic Society*, October, 1966, is reproduced in the Appendix I. (Pl. XLIIb).

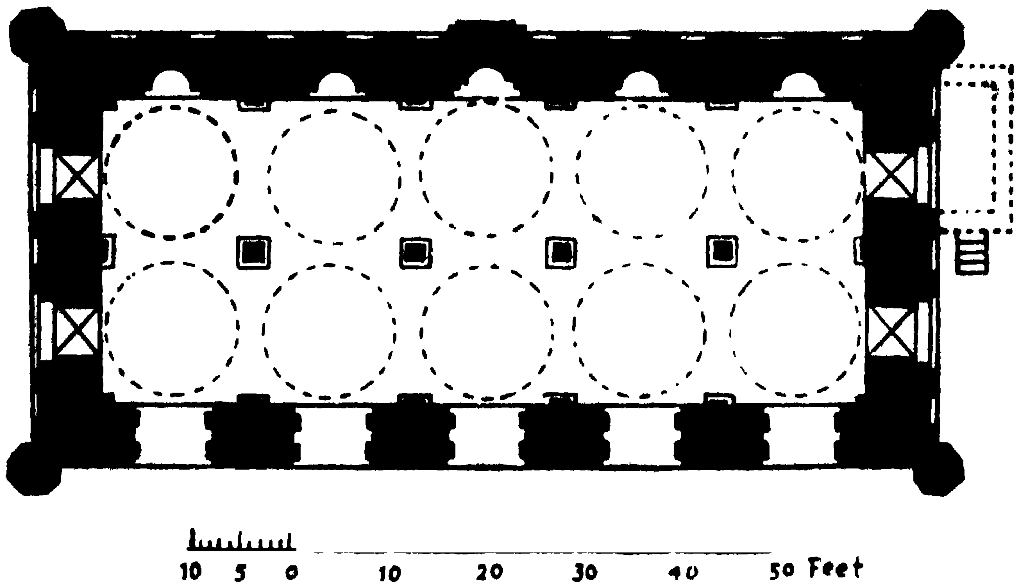


Fig. 22. Gaud : The Tantipara Masjid : ground plan

(D) The Mosque of Firuz Shah II at Guamalti (Gaud)
(A.H. 894/A.D. 1489)

There is a ruined mosque in Guamalti (Fig. 21), situated at the south-west of the English Bazar in the centre of the ancient city.[25] Ilahi Bakhsh observes, "Near the (abandoned) Indigo factory of Goamalti and to the east of it, there is a minar in good order and a ruined mosque. The Mosque was built in the time of Sultan Bahadur Khan as the inscription shows, which is now lying at the factory.[7] This inscription is reported by Ilahi Bakhsh being on bricks and bearing the date A.H 711 (A.D. 1311).[26] He says, "The only Goamalti inscription known appears to be one of 894 (1489) which belongs to the reign of Firoz Shah II".[27] There is an inscription in the Indian Museum, Calcutta, which was not known to Ilahi Bakhsh.[15] His inscription of A.H. 711, therefore, cannot be ascribed to the Guamalti Mosque, and might have been attached to any of the adjacent buildings.

I came across several carved black basalt fragments in the depository of the Victoria and Albert Museum, London. These consist of stone pillars, framed arches and other fragments which were presented to the Museum by Reginald Porch. Bearing this out, Beglar says, "I have myself seen in the compound of the then Magistrate of Malda, the late Mr. Porch, a set of lintels obtained from Pandua, which he, when going on his last furlong, packed up and carried off to England".[28] The date of the stone work is about A.D. 1450.[29] These fragments may be attributed to the Guamalti Mosque. As far as it can be reconstructed, the mosque follows the rectangular type of Bengali mosques. It has a double-aisled *liwan* roofed with 10 domes, and there must have been 5 semi-circular concave *mihrabs*. What Ilahi Bakhsh regarded as a minar must have been the corner tower of the mosque. It cannot be said whether it had an eastern verandah.

A fragmentary inscription of Sultan Firuz Shah II (A.H. 893-96/A.D. 1487-90) has been noticed for the first time in the *Asian Review*, N.S., August, 1965. The date of the epigraphic record is unfortunately lost. Besides this inscription collected by Francklin from Guamalti, Gaud, another record dated A.H. 894/A.D. 1489, procured by Westmacott and published by Blochmann and Ravenshaw was said to have originally belonged to a mosque of which ruins are still traced near the Guamalti Indigo factory.

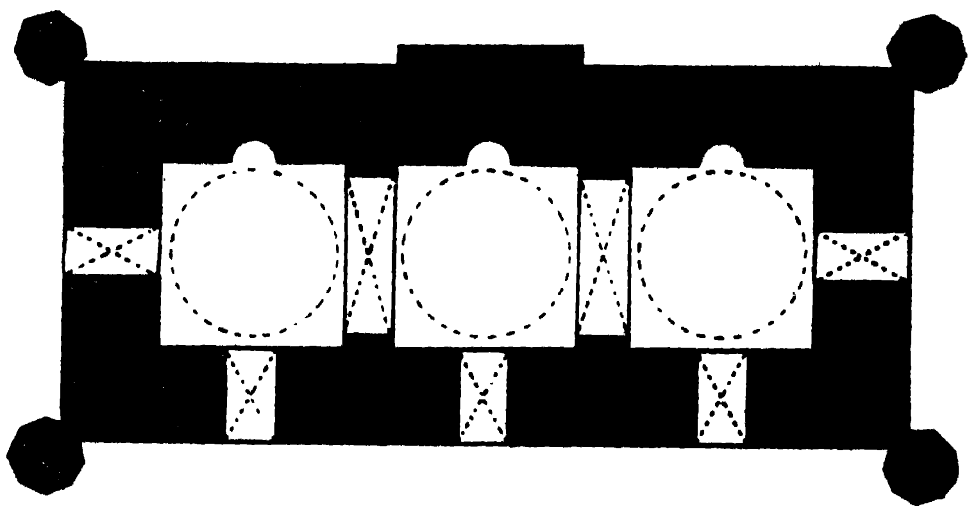


Fig. 23. Gaud : The Dhunichak Masjid : ground plan

(E) The Mosque at Bagha, Rajshahi

(A.H. 930/A.D. 1523-24)

Situated about 35 miles south-east of Rajshahi lies the Mosque of Bagha (Pl. XXX) within an enclosed compound in the vicinity associated with the great saint Hazrat Maulana Shah Mua'zzam Daula.[30] Carstairs traced an inscription in this mosque, fixed over the central door of the Mosque. Carved in three lines in black basalt the Arabic inscription measures 24⅝ inches by 5¼ inches. The slab recording the erection of a congregational mosque by Sultan Nasir ud-Din Nusrat Shah in the year A.H. 930/A.D. 1523-24 runs thus :

Text :

قال النبی صلی الله علیه و سلم من بنی مسجد الله بنی الله له بیت (؟) فی الجنة- بنی هذا
المسجد الجامع السلطان المعظم و المکرم السلطان بن السلطان بن السلطان ناصر و الدنیا و الدین
ابو المظفر نصرتشاه السلطان ابن حسین شاه السلطان الحسینی- خلد الله ملکه و سلطانه فی سنت
ثلثین و تسعمایة -

Translations : "The Prophet, May the blessings and peace of Allah be upon him, has said, 'Whoever builds a mosque for Allah in this world, Allah will build for him a house in Paradise'.

This cathedral mosque was built by the Sultan, the exalted and the benevolent, the son of Sultan Nasirud-Dunya wad-Din Abul Muzzaffar Nusrat Shah, the Sultan, son of Husain Shah

the Sultan, al-Husaini; May Allah prepetuate his Kingdom and Majesty; in the year nine hundred and thirty." (A.H. 900/A.D. 1523-24)

Entered by two old arched gateways from the north and the south sides, the Mosque at Bagha is described as one of the handsome monuments in the District of Rajshahi, recalling as Bloch thinks, the Tantipara Masjid, dated A.H. 885/A.D. 1480 (Fig. 22 & Pl. XXV) in every details. Carstairs, who noticed its architectural beauty as early as 1872 observes, "It has 10 domes visible from outside over the roof and supported inside by vaulted arches running lengthwise and traverse between the walls and the four stone pillars which stand along the centre of the interior...In the west wall there are three ornamental recesses intended for the leaders of devotion, the central recess being for the Imam. The building is 54 feet long by 45 feet broad; the walls of brick 7 feet in thickness."[30]

Standing on the bank of a large tank, a quarter mile in length and 600 feet in breadth, the Mosque looks according to an authority "like a queer-shaped barn of red brick. While O' Malley gives the measurement as 80 feet by 36 feet,[10] Dani takes the splendid Mosque as oblong, measuring 75 feet 8 inches by 42 feet 2 inches.[8] It is buttressed like the Chamkatti Masjid (Pl. XVII), the Tantipara Masjid, both at Gaud, and the Eklakhi Tomb at Hazrat Pandua (Pl. XVI) by octagonal corner towers, divided into several stages, filled with decorative niches and offset mouldings. The mosque is entered from the eastern side by five beautifully decorated arched doorways, each bordered within ornamental framework. The facade is divided into two panels, showing the usual brick carvings of great beauty and taste.

The interior of the Mosque is divided into two aisles by four nicely carved black basalt pillars, which supported the springing of the arches, transversely and longitudinally. The space inside is well-proportioned : that it is split up into ten small squares by two aisles and five bays, above which rise ten small brick hemispherical domes. Like the Tantipara Masjid and the Bara Sona Masjid at Gaud, the Mosque at Bagha is also roofless, its domes being collapsed by the earthquake of 1897.[10] As the domes have all disappeared, it is hard to observe the method used for marking the transition from the square interspaces to the circles of the dome.

The *qibla* wall has three ornate *mihrabs* in three southern bays, a panelled design in the fourth and a small niche in the second storey of the fifth. Dani contends that the Mosque at Bagha had originally a ladies' gallery, like that of the Tantipara Masjid at Gaud. The chief merit of this mosque lies in its exquisite terracotta ornamentation. Varying patterns and details in delicate brick carvings particularly in the central *mihrab* undoubtedly mark the climax of ornamental art in the 16th century A.D. T. Bloch considers these beautiful carvings of floreat designs, senuous tendrils and interwoven patterns and the luxurious vegetation extremely elegant and in some respects finer and more ornate than those of the Tantipara Masjid at Gaud (Pl. XXVII). The decorative grill windows and hanging motif in the form of a pendant with grapes exhibit greater skill and ingenuity in ornamental art than those found in earlier monuments.[31]

(F) The Mosque of Baba Adam at Rampal, Dacca

(A.H. 888/A.D. 1484)

The famous Mosque of Baba Adam, (Fig. 17) the patron saint of the locality in the ancient Hindu site of Rampal where Raja Ballal Sena built his palace in the district of Dacca is an impressive architectural monument of pre-Mughal Bengal.[32]

Situated at about half a mile to the north of Ballalbari or the residence of Balall Sena, the Mosque of Baba Adam is recorded to have been built by the exalted Malik Kafur during the reign of Sultan Fath Shah in the year A.H. 888/A.D. 1483. The inscription in a double line Naskhi in Arabic runs as follows :

Text :

قال الله تعالى و ان المساجد الله فلا تدعوا مع الله احداً - قال النبى صلى الله عله و سلم من بنى
مسجداً فى الدنيا بنى الله له فى الجنة بنى هذا المسجد الجامع الملك المعظم ملك كافور -
فى زمان السلطان ابن السلطان جلال الدنيا و الدين ابو المظفر فتحشاه السلطان ابن محمود شاه
السلطان تاريخ اوسط شهر رجب سنة ثما (ن) و ثمانين و ثمنماية -

Translation : "Allah, the Most High says, 'Surely the mosques belong to Allah, so do not call any one with Allah'. The Prophet, blessings and peace of Allah be upon him, has said 'Whoever builds a mosque in this world, Allah will build for him a palace in Paradise'.

This congregational mosque was built by the exalted Malik Kafur, in the time of the Sultan, son of the Sultan, Jalal-ud-Dunya wad-Din Abul Muzaffar Fath Shah, the Sultan, son of Mahmud Shah, the Sultan ; by the date, in the middle of the month of Rajab in the year eight hundred and eighty eight." (Rajab A.H. 888' August, A.D. 1483).

Much smaller than 10-domed variety of pre-Mughal mosques, the Mosque of Baba Adam is a simple and unassuming structure of great architectural beauty. Conforming to the oblong multi-domed type with all the requisite features of the period, it is divided into two aisles by a three arched colonnade running longitudinally. The interior space of the mosque is split up into six well-proportioned squares by two aisles and three bays. Measuring 43 feet by 36 feet externally and 34 feet by 22 feet internally, the Mosque incorporated a number of beautifully carved stone pillars of unmistakable Hindu workmanship.[1] Asutosh Gupta considers these pillars as the "Gadas" or clubs of Ballal Sena, which carry arches transversely and longitudinally.[32] Measuring 20 inches in diameter, the black basalt pillars are octagonal at the base, ending in a sixteen-sided shaft. The Mosque is roofed over by six hemisherical domes which underwent considerable renovation in recent times. In close conformity with the corner towers of earlier mosques, it has the usual octagonal buttressed towers. The structure has the usual curvilinear cornice.

The Mosque is entered from the eastern side by three pointed arched doorways, which are separated by a panel showing small niches of bricks with prominent motif of hanging

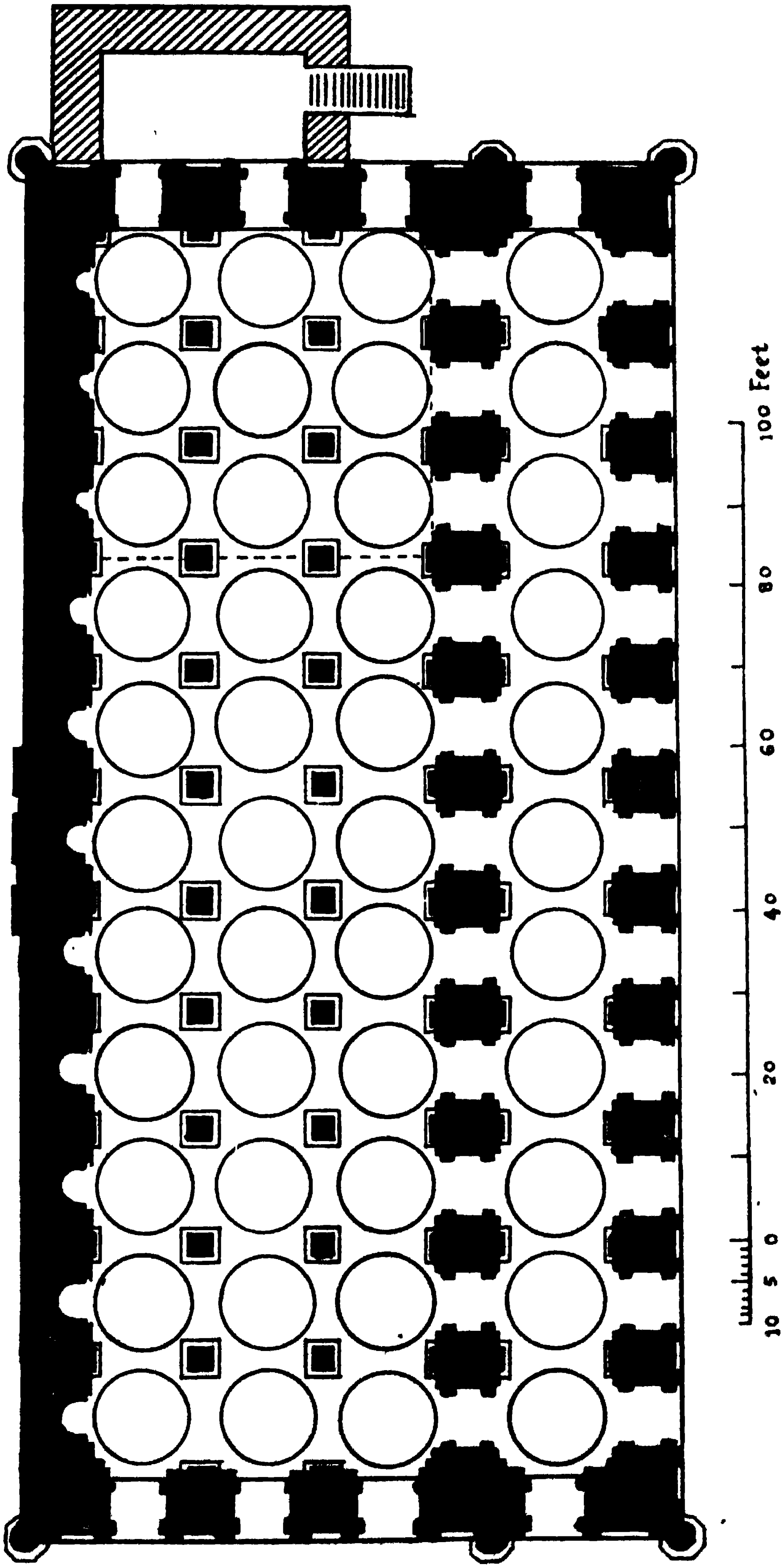


Fig. 24. Gaud : The Bara Sona Masjid : ground plan

bell and chain, which are lost. The monotony of the facade is relieved by brick mouldings, battlemented cornice, rectangular arched frames encompassing the doorways, offsets and recesses. The *qibla* has three *mihrabs*, the central one being the most ornate. Though considerably repaired the central *mihrab* still betrays the multi-cusped arch resting on beautifully carved pillars and hanging designs in the alcove. The spandrels of the arch are adorned with rosettes, and other elegantly cut floral motifs. While conforming to the typical Gaud style of the period, the Mosque of Baba Adam anticipates similar 6-domed oblong variety of mosques as exemplified by the Mosque at Sailkuppa, Jessore, and Jalaluddin's Mosque at Satgaon, Hughli, both dated from the early 16th century A.D.[8]

Abdul Wali noticed the Mosque of Sailkuppa in the district of Jessore in the *Journal of the Asiatic Society* and attributed its construction to Hazrat Maulana Muhammad Arab, a celebrated Saint, during the reign of Sultan Nusrat Shah.[33] Though completely renovated in recent times, the Mosque retains some of its original characteristic features already met in the multi-domed oblong type of mosques elsewhere. Measuring 31½ feet by 21 feet with wall 5½ feet thick, the Mosque is divided into six squares by two aisles and three bays, each roofed over by a small low dome. A row of three pointed arches, running parallel with the *qibla* wall is carried by two stone pillars. Entered by three doorways in the eastern side, the central one being wider and more ornate than the side ones, the mosque has the pre-requisites of mosque, namely, *mihrabs*, pulpit, etc. There are also two entrance doors each in the northern and southern sides. Of the various architectural features worth mentioning the most curious are its *mihrab* projections, curved cornice, tiered circular corner towers with a tall turrets, tastefully carved brick designs, perforated windows, etc.[33]

The Mosque of Satgaon was built according to inscriptions by Sayyid Jamal-ud-Din Hussain during the reign of Sultan Nusrat Shah in the year A.H. 936/A.D. 1487. Blochmann observes about this mosque : "Satgaon is reached by the Grand Trunk Road. Half way between Mughra and Satgaon, meets the Saraswati or Sursuttee, now varying in breadth from three to six feet, but a few centuries ago a broad river. The old banks are still visible. After passing the bridge, a ruined mosque will be seen to the right of the road. This mosque which, together with a few tombs near it, is the only remnant of the capital of Lower Bengal, was built as will be seen below, by Jamal-ud-Din, son of Sayyid Fakhrud-Din who, according to the inscriptions had come from Amul, a town on the Caspian Sea."[9] The Mosque is in *situ*, which if reconstructed, conforms to the 6-domed oblong type of mosques, as observed in Bagha (Pl. XXX) and Sailkuppa. As stated by Blochmann, "The walls of the mosque are built of small bricks, and are handsomely adorned inside and outside with arabesques. The central *mihrab* or niche, looks very fine; but the upper part of the west wall having fallen down, half the mosque is filled with stones and rubbish, so that it is impossible to see the whole of the niche. The arches and domes are in the later Pathan style."[9]

The oblong multi-domed type of mosque of both the 10-domed and 6-domed varieties were also built in the different parts of Bengal in the later part of the 15th century and the early half of the 16th century A.D., as illustrated by the Majlis Saheb's Mosque in Kalna, Burdwan, the Mosque at Hemtabad, Dinajpur, Majlis Aulia Mosque at Pathrail, Faridpur, Salik Mosque at Bashirhat and the Jahaniyan Mosque at Gaud.[8] (Fig. 25) The Majlis Saheb's Mosque at Kalna, measuring 75 feet 9 inches by 25 feet 3 inches is roofed over by ten domes and has a *zenana* gallery. Probably it is dated from the 15th century A.D. Buchanan Hamilton describes in great detail and drew sketches of the Hemtabad Mosque with somewhat exaggerated notions. However, as transpired from the sketch, it conforms to the multi-domed type of mosque by having ten roofs, curved cornice, corner towers, arched openings used as doorways, blind merlons, etc.[20] The Majlis Aulia Mosque at Pathrail is a replica of the Bagha Mosque in the district of Rajshahi, both built in the later part of the Husain Shahi period.

Though considerably altered in recent times, the Salik Mosque at Bashirhat, 24 Parganas, was built during the reign of Sultan Barbak Shah in the year A.H. 871/A.D. 1466, according to an inscription given below :

Text :

لا اله الا الله محمد رسول الله - بنى هذا المسجد العظم و المكرم مجلس اعظم دامت
عظمته - سنه احدى و سبعين و ثمانمايه -

Translation : "There is no God but Allah, Muhammad is the Messenger of Allah. The mosque was built by the exalted and benevolent Majlis, may his glory last for ever, in the year eight hundre d and seventy-one." (A. H. 871/A.D. 1466)

In the construction of this 6-domed mosque, measuring 36 feet by 24 feet, considerable amount of locally available materials from dilapidated Hindu monuments were employed as evident in the black carved basalts of the pillars, *mihrabs*, epigraphic slabs, etc. The most striking of the 16th century multi-domed type is the Jahaniyan Mosque at Gaud.[8]

(G) The Jahaniyan Masjid At Gaud

(A.H. 941/A.D. 1535)

Situated a little to the south of the tomb of Akhi Sirajuddin the Jahaniyan Masjid (Fig. 25) which is popularly known as Jan-Jan or Jhan Jhania Masjid is probably one of the latest buildings of the Husain Shahi period in Gaud. The appellation seems to have been corrupted for the saint for whom this masjid was built. He was known as Makhdum Jahaniyan Jahangasht. It is said that he brought the foot-print of the Prophet from Arabia upon which the Qadam Rasul building was erected.

Over the middle doorway of the facade there is a fine inscription in *Tughra* characters. It reads as follows :

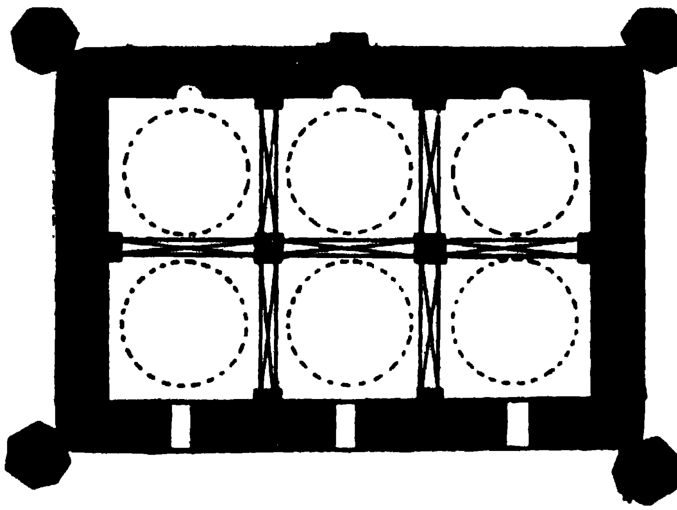


Fig. 25. Gaud : The Jahaniyan Masjid : ground plan

Text :

قال النبى صلى الله و سلم من بنى مسجدا لله بنى الله له بيتا مثله فى الجنة بنى هذا
المسجد الجامع فى عهد السلطان ابن السلطان غياث الدنيا و الدين ابو المظفر محمود شاه السلطان
بن حسين شاه السلطان خلد الله ملكه و سلطنته و بانيه بى بى مالتى دامت سيرها و ادام الله معاليها
فى سنه احدى و اربعين و تسعمائة -

Translation : "The Prophet—May the blessings and peace of Allah be upon him ! has said 'Whoever builds a mosque for Allah, Allah will build a similar house in Paradise.' This Mosque was built in the time of the Sultan, son of a Sultan, Ghiyas-ud-Dunya wad-Din Abul Muzaffar Mahmud Shah the Sultan, son of Husain Shah the Sultan—May Allah perpetuate his Kingdom and Rule. Its builder is the Lady Malti—May her virtues be prolonged, and May Allah perpetuate her high position !—in the year nine hundred and forty one." (A.H. 941/A.D. 1535)

In the words of 'Abid 'Ali, "The name Guamalti (a suburb of Gaud where the indigo factory was situated) is possibly a corruption of Bua-Malti. The local story is that one Nalati (or Malati) was maid servant to Sultan Nusrat Shah (929-939 A.H. or 1518-1532 A.D.) and that she was called in the Harem by the name Bua Malati or Bua Malti, Bua meaning 'elder sister'. The place where she resided was also called 'Buati'. It seems to the writer that Bua Malati held a high position in the Royal family and that it was probably she who constructed the Jahaniyan Mosque at Piran-i-Pir (vicinity of the tomb of Akhi Sirajuddin) in 941 A.H. (1535 A.D.), as well as being the provider of the drinking-water shed mentioned in the inscription found at Chalispara, Old Maldah, that was built in the year 938 A.H. (1532 A.D.)."[6]

The Jahaniyan Masjid is an oblong brick structure, measuring 56 feet long and 42 feet wide. The inner dimensions are 40 feet by 26 feet 3 inches. Buttressed by octagonal corner towers with turrets projecting above the roof the building is entered by three arched doorways in the east. The towers are elegantly decorated and topped by small pinnacles, showing the design of lotus petals, holding a cupola. This little structure of exquisitely carved brick designs has all the usual features of pre-Mughal Bengal architecture, namely, the triple cornice, corner towers, curved battlements, etc. The facade of the Masjid is divided into four panels by brick mouldings. The monotony of the brick surface of the facade is relieved by offsets and recesses as well as rows of decorative window niches with the inimitable hanging bell and chain motif. In the words of Dani, "the facade is very ornately decorated, verging on flamboyancy".[6]

The interior of the Masjid is divided into two aisles, roofed over by 6 domes, 3 in each aisle. The domes which are supported by stone pillars in the inside have elegant lotus finials which, however, betray Mughal influence. There are three elegantly carved semi-circular concave *mihrabs* in the *qibla* wall of the Masjid.

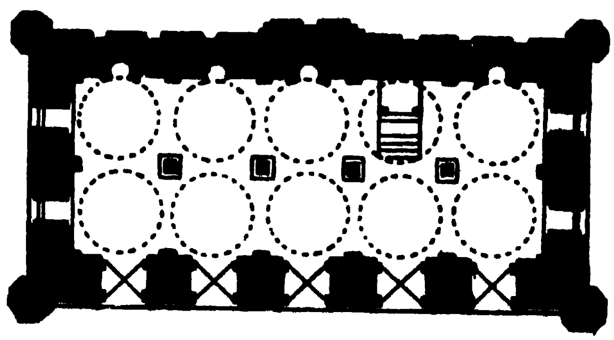


Fig. 26. The Mosque of Qutb Shah : ground plan

The trend of building art in the pre-Mughal period persisted in the later phase of Bengal architecture as evident in the 6-domed Mosque of Kusumbha (Pl. XXXI) in the district of Rajshahi, dated A.H. 966/A.D. 1558 and in the 10-domed Mosque of Qutb Shah in Hazrat Pandua, dated A. H. 990/A.D. 1582 (Fig. 26). Measuring 58 feet by 42 feet, the Kusumbha Mosque was built by Sulaiman during the reign of Ghiyasuddin Bahadur Shah and conforms to the oblong multi-domed type of mosques initiated by the Mosque of Zafar Khan at Tribeni. In its 6-domed structure, buttressed by typical octagonal towers at four corners, curved cornice, three *mihrabs* in the *qibla* wall, stone pillars dividing the prayer chamber into two aisles, it recalls the Mosque of Baba Adam. The chief merit of this mosque lies in its exquisitely ornate designs, particularly in the central *mihrab* (Pl. XXXI), which is a *tour de force* of technical excellence. The stone-cutter's art had been carried out here to such an extent as to mistake it as a finely woven carpet. Carstairs compares it with the Bagha Mosque in having brick structure encased with stone, ladies' gallery and many similar features.[30] In point of fact the Mosque of Qutb Shah at Hazrat Pandua, dated A.H. 990/A.D. 1582, is a replica of the Bagha Mosque (Pl. XXX). Built

by Makhdum Shaikh, it is a 10-domed oblong mosque with octagonal corner towers, triple curved cornice, pointed arched doorways, a stone platform in front of the canopied pulpit, etc. The mosque demonstrates all the characteristic features already observed in the earlier mosques, such as the Zafar Khan's Mosque at Tribeni, the Tantipara Masjid and the Ruined Mosque, both at Gaud. In the words of O'Malley, "The mosque is of the Bengal style of architecture usual in the buildings at Gaud and compares favourably with the mosques extant at that place."[10]

(iii) Triple aisle without corridor

In close conformity with the single aisled and double aisled multi-domed type of mosques noticed earlier, the triple aisled oblong type also represents all the peculiar characteristics of pre-Mughal architecture of Bengal. The most interesting examples of this variety are the following :

1. The Great Mosque at Chhoto Pandua, Hughli
2. The Mosque at Shahzadpur, Pabna
3. The Mosque at Masjidkur, Khulna
4. The Mosque at Kasba, Bakerganj

(H) The Great Mosque at Chhoto Pandua, Hughli (14th century A.D.)

"Next to Satgaon", writes D.G. Crawford, "Pandua is the oldest place of Hughli District—once the capital of a Hindu Raja and is famous as the site of a great victory gained by the Musulmans under Shah Safi over the Hindus in about A.D. 1340."[34] Besides the Mosque and Tomb of Shah Safiuddin, the most outstanding architectural project of great magnitude is the Great Mosque at Chhoto Pandua. Situated to the west of the impressive Minar, the Great Mosque is, like the Mosque of Zafar Khan at Tribeni, an oblong type of mosque with the difference that at the Chhoto Pandua there is triple aisled prayer chamber roofed over by as many as 63 domes. It is divided into three aisles by two rows of arcades, each carrying 21 arches. Blochmann says, "The Mosque is built of small light-red bricks which, like the 42 pillars, once belonged to Buddhist ornaments in excellent preservation. The pillars inside are of basalt, about half of them are well-ornamented".[9] The most redeeming feature in the architectural composition of the Mosque is the springing of usual brick massive arches resting on apparently Hindu slender shafts of basalt, 6 feet high. The arches spring directly from the back wall without any pilaster or even impost. In all there are 20 such pillars in each of the three transverse rows of arcades. Blochmann has published three types of pillars employed in the mosque : (i) Decagon shaft containing *makara* with bell and chain motif with moulded string-course above and below; (ii) Decagon shaft with moulded string-course on elongated square base, used in the *mihrab*; (iii) Decagon shaft with moulded string-course, but with an abacus.[9] O'Malley and M.M. Chakravarti differ from Blochmann in ascribing Buddhist origin to these pillars and

maintain that they were probably quarried from a Hindu temple.[35] As put forward by Cunningham, "The Mosque stands on a mound once the site of a Hindu temple, the pillars of which now support this mean-looking barn-like masjid."[15] It would be far-fetched to maintain that the Great Mosque at Chhoto Pandua was built on the very foundation of a Hindu temple, like the improvised Tomb of Zafar Khan Ghazi at Tribeni, dated 14th century A.D.

The Great Mosque at Chhoto Pandua measures 231 feet by 42 feet, its length being roughly five times the breadth. The building is roofed over by 63 small domes which have fallen down long ago. In the words of M.M. Chakravarti, "The domes are also built up of concentric rings of bricks, one ring above the other, each becoming smaller and smaller in circumference until the top opening is closed by a stone, just as in Hindu towers built on horizontal arches."[1] Dani contradicts the statement of Chakravarti by saying that the domical construction is more akin to arcuate rather than pyramidal type, as evident by the use of corbelled pendentives.[8]

The *qibla* wall is decorated with 21 *mihrabs*, the central one being the most ornate. It has a cinquefoil arch with a fine archivolt and is superimposed by a decorative cinquefoil arch with medallions at the spandrels. It is then capped by five series of crenelation, each having three. The semi-circular concave *mihrab*, which recalls that of the Mosque of Zafar Khan, is enclosed by a rectangular frame, reveted with diaper patterns. The recess is also tastefully panelled and decorated with usual ornamental motifs. An impressive canopied pulpit which is provided for chanting the *Khutba* before congregational prayer, anticipates the *minbar* of the Adina Masjid at Hazrat Pandua. Both the *minbars* have beautifully carved stone stairs with railings, raised platform, multifoil arched canopies, open to the three sides, delicate stone carvings, etc.[9]

Blochmann observes, "In the N.W. corner of the mosque a high platform has been erected of solid masonry with a small room on it, which is said to have served Shah Safi as *Chilla Khanah* or room for 40 day's saintly retreat."[9] In all probability the *Chilla Khanah* of Blochmann must have been used as a ladies' gallery.[8]

Comparing the Great Mosque at Chhoto Pandua with the Fort Mosque at Jaunpur, Cunningham mentions, "This (the Fort Mosque) is 130 feet long by 42 feet broad : but the proportions are almost exactly the same, and the aisles are supported in the same way on Hindu pillars."[15] Rejecting the contentions of Cunningham, Dani observes, "The Bari Masjid at Chhoto Pandua comes closet to the mosque of Zafar Khan Ghazi in its general oblong plan, the design of the front facade with its arches resting directly on pillars, and the interior look with long vistas of successive arches springing directly from the pillars."[8] The Great Mosque at Chhoto Pandua, though devoid of any corner towers and corridor must be dated from the 14th century, judging from the thin red bricks, low hemispherical domes, typical stone pillars, utilization of non-muslim building materials, low pointed arched doorways, etc. In the words of P. Brown, "If the date of its building is previous to the middle of the fourteenth century as is surmised, this mosque was the model for the much larger and more important Adina

Masjid at the Mohammadan capital at Bengal, also named Pandua......Although in a sad state of decay this village mosque is a landmark in the development of Moslem architecture in Bengal as it appears to be the earliest existing example of a multi-domed mosque having a quadrangular plan."[13]

The Great Mosque at Chhoto Pandua serves as a proto-type of the oblong multi-domed variety having triple aisled *liwan* of the 15th and the 16th century mosques of pre-Mughal Bengal, as exemplified by the Mosque at Shahzadpur, Pabna, the Mosque at Masjidkur, Khulna, and the Mosque at Qasba, Bakerganj. Measuring 51 feet 9 inches by 31 feet 5 inches, the Mosque at Shahzadpur, dated 15th century A.D. is roofed over by 9 domes, instead of 21 as noticed in the Great Mosque of Chhoto Pandua. Though it has been renovated in the Mughal times, it still retains the original beautifully carved basalt pillars, canopied pulpit, five niches, etc.[8] Another 9-domed variety of multi-domed mosque is to be seen in the Mosque at Masjidkur, Khulna, which, according to Westland, "...owes its origin to the same hand which built the Satgumbaz. The principle structure is the same, only instead of a breadth of eleven domes and a depth of seven, we have here a breadth and depth of three domes only, or nine in all."[36] In its circular corner towers, curved cornice, low arched doorways, small hemispherical domes, slender pillars carrying arches inside, absence of corridor, the Mosque at Masjidkur recalls the similar characteristic features of the Saith Gumbad Mosque at Bagerhat, and therefore, it may be dated from the middle of the 15th century A.D. Another interesting example of the 9-domed type of Mosque was built in the southern Bengal almost in the same period, namely, the Mosque at Qasba, Bakerganj, which resembles in all minute details and plan the Mosque at Masjidkur, Khulna.

(iv) Triple aisle with corridor

The triple aisle variety of the multi-domed mosques of pre-Mughal Bengal is also re-represented by another impressive architectural monument built at Gaud in the year A.H. 932/A.D. 1525-26. This is the Great Golden Mosque (Pl. XXXII) which is unique of its kind in the sense that it has a corridor in the eastern side. Embodying all the developed architectural features of the oblong multi-domed type of mosques, already observed in the Mosque of Zafar Khan Ghazi at Tribeni, the Great Mosque at Chhoto Pandua, the Tantipara Mosque at Gaud, the Mosque of Baba Adam at Rampal, Dacca, (Fig. 17) the Great Golden Mosque at Gaud stands out as one of the noblest surviving architectural monuments of pre-Mughal Bengal.

(I) The Bara Sona Masjid at Gaud
(A.H. 932/A.D. 1525-26)

Orme is the earliest authority to notice the Bara Sona Masjid or the Great Golden Mosque.[22] (Fig. 24 & Pls. XXXII-XXXV). Ruined though it is, it is one of the most impressive buildings still existing in Gaud. According to Francklin, "two miles north of the Tannah of Gaur after crossing the Bhagritti there is a mosque called 'Sonah

Masjid." It is a building of very unusual construction for it is approached by an arched gate of stone, 26 feet in height and 6 feet in breadth.[19]

Ravenshaw described this Mosque (Pl. XXXII) as *Baradiwari*. He writes, "There are eleven arches on either side of the corridor, and one at each end of it, from which probably the mosque has obtained the name of Baradiwari or 'the twelve doored".[16] The term *Baradiwari* or *Baradwari*, literally meaning twelve doors, is a misnomer as there are only eleven pointed doorways in the eastern front of the mosque. Cunningham explains the term "*Baradwari*" as God's house", thereby implying that there is no connection with the arched openings. As he puts it, "Perhaps Baridwari, 'God's house' may have been original form of the name; but its present pronunciation is simply Baradwari which is the proper form of the well-known Baradari".[15] D. N. Sen says that the Golden Mosque preserves the name of 'Baradwari' which is used for Bengali huts.[37] 'Abid 'Ali says, "......the name Baradwari......was given to the mosque on account of its spacious court-yard in front of the mosque".[6] Therefore, the term is commonly used throughout India for pavilions of various sorts. It should, perhaps, be observed, in connection with the '*Baradiwari*' and the eleven openings, that bridges such as the *Ath* (eight) *pula* in Delhi have only *seven* openings; it is thus not impossible that the 'diwari' of the name refers to the twelve door-posts or piers.

Creighton regards the Great Golden Mosque (Pl. XXXII) as the best and the largest building remaining in Gaud.[17] It is rectangular in plan, measuring 160 feet long and 76 feet broad. The prayer hall is divided by two rows of pillars into three aisles. In each row there were 10 substantial stone pillars, carrying 11 pointed transverse arches.[38] The Mosque was roofed over by 33 small domes. The transition from the square to the circle of the dome is attained by brick stalactite pendentives. There are 11 concave semi-circular *mihrabs* carved in black basalt. The verandah (Pl. XXXV) on the eastern side of the mosque is entered by 11 pointed arch openings. There are 3 entrances each on the north and the south sides of the verandah. The mosque once had a *zenana* gallery; all that now remains is the double tier of arch openings in the north-west corner of the prayer hall. Cunningham says, "The floor of this private apartment or Takht, was formed of brick vaults, the traces of which are distinctly marked against the end wall of the mosque. The room comprised six bays in the north-western corner, three in the back aisle, and three in the middle aisle. Access to this compartment is obtained through a room on the outside, from which two low doors led into it, there being two similar small doors below leading into the body of the mosque below the vaulted harem room".[38] Cunningham must have totally misjudged the plan when he considers the *zenana* gallery to have been vaulted. As the plan shows, it could only be roofed over by 9 small domes. What he called a "room" must be regarded as an impressive entrance porch, which we have already met with in the Tantipara Masjid and the Chhoto Sona Masjid. Remains of a raised terrace outside the Masjid on the north-western corner can still be seen. 'Abid 'Ali observes, "The remains of a sloping platform connecting the doors with the ground level are still to be seen there. Ladies' galleries are found in many mosques in Central India, Khandesh

and elsewhere but in the Mughal period the ladies' galleries were generally on the ground floor, and not raised on pillars or arches".[6]

With regard to the usual buttressed corner-towers, Francklin writes, "Six minarets (corner towers) or columns of brown stone faced with black marble, adorn the building; bands of blue marble above twelve inches in breadth embrace the column from the base to the capital, and are adorned with a profusion of flower-work carved in the marble".[20] These corner towers are octagonal in design, like those at the Eklakhi Tomb, the Tantipara Masjid and the Chhoto Sona Masjid.

'Abid 'Ali writes, "On the south-east side there exists a raised platform locally called '*Chabutra*' by the local people. It is believed that the *Chabutra* was used by the *Mu'azzin* for calling the Faithful to Prayer, but this does not seem very probable as the Call to Prayer is generally made from a high tower".[6]

There are arched gateways on the north, the south and the east sides (Pls. XXXIII, XXXIV) of the wide quadrangle in front of the mosque, measuring about 200 feet square. Orme says that there was once a surrounding brick wall faced with stone. Cunningham states that these gateways were "ornamented with flowers in glazed tiles of different colours, white, blue, green yellow and orange, of which numerous fragments are lying in the ruins at the foot of each gate......"[21]

Regarding the date of the Great Golden Mosque, Ravenshaw says that though there is no inscription whatsoever on the building, he believed this was commenced by Husain Shah and completed by his son Nusrat Shah.[16] Both Orme and Francklin, however, give a transcription of an inscription of Sultan Nusrat Shah which is dated A.H. 932/A.D. 1525-26.[22] This is carved in beautiful *Tughra* and was fixed over the central entrance of the eastern facade, now missing. The panel measures 5 feet 2 inches in length by 2 feet 1 inch in height.[21] Shamsuddin Ahmed makes a mistake when in his notice of this record he identified this with another inscription of the same date, which was discovered by Marshmann in Gaud and later removed to Serampur, Hughli.[39] The text of the Great Golden Mosque inscription and its translation are as follows :

Text :

قال النبی صلی الله علیه و سلم من بنی مسجد الله بنی الله تعلی له بیتا مثله فی الجنة - بنی
هذا المسجد الجامع السلطان المعظم المکرم السلطان ابن السلطان ناصر الدنیا و الدین ابو المظفر
نصرت شاه السلطان ابن حسین شاه السلطان ابن سید اشرف الحسینی خلد الله ملکه و سلطانه و اعلی
امره و شانه فی سنه اثنی و ثلثین و تسع مایة -

Translation : "The Prophet May the blessings and peace of Allah be upon him, has said, 'Whoever builds a mosque for Allah, Allah will build a house for him, like it, in Paradise.' This congregational mosque was built in the time of the learned Sultan, the Sultan, son of the Sultan, Nāsir-ud-Dunya wad-Din, Abu Muzaffar Nusrat Shah, the Sultan, son of Husain Shah, the Sultan, son of Sayyid Ashraf Husaini-May Allah perpetuate his Kingdom and Rule, and elevate his power and dignity ; in the year nine hundred and thirty two." (A.H. 932/A.D. 1525-26).

NOTES AND REFERENCES

1. Chakravarti, M. M., *Pre-Mughal Mosques of Bengal*, in *JASB*, New Series, vol. VI, 1910, No. 1. He calls it, "the multi-domed parallelepiped". Dani has described these buildings under the 'late Ilyas Shahi style' on the basis of the chronology of the restored Ilyas Shahis of Bengal, who ruled from A.H. 841/A.D. 1437 to 893/1487 (*MAB*).
2. Saraswati, S.K., *Indo- Muslim Architecture in Bengal*, in *JISOA*, vol. IX. 1941.
3. loc. cit. pp. 59-103.
4. loc. cit. pp. 112-123.
5. *Revised list of Ancient Monuments in Bengal*, 1886, Calcutta, 1887. See also Lambourne, G.B., *Bengal District Gazetteers*, vol. XXXV, Malda, Calcutta, 1918.
6. 'Abid' Ali Khan, *Memoirs of Gaur and Pandua*, edited by H. Stapleton, Calcutta.
7. Ilahi Bakhsh, *The Khurshid-i-Jahan Numa*, edited and translated by H. Beveridge, in *JASB*, vol. LXIV, Part I.
8. *MAB*.
9. *Blochmann*, H., *Contributions to the History and Geography of Bengal*, in *JASB*, 1870.
10. O' Malley, L.S.S., and Chakravarti, M.M., *Bengal District Gazetteer*, Hoogly, Calcutta, 1912.
11. Banerjee, R.D., *Saptagrama*, in *JASB*, 1909, vol. V.
12. Money, D., *An Account of the Temple of Triveni near Hughli*, in *JASB*, May, 1847.
13. Brown, P., *Indian Architecture (Islamic Period)*, Bombay, 1964.
14. Fergusson, J., *A History of Indian and Eastern Architecture*, London, 1910.
15. *ASR*, XV.
16. *Imperial Gazetteer of India*, vol. XII, New Edition, 1909. See also Ravenshaw, J.H., *Gaur : its Ruins and Inscriptions*, edited by Mrs. C. Ravenshaw, Annotated by A. Grote, London, 1878.
17. Creighton, H., *The Ruins of Gaur*, Described and represented in eighteen views with a topographical map, London, 1817. His paintings show the existence of a very big building on the north-east side of it. 'Abid 'Ali says, "It seems to have been an out-house for Travellers, or it may have been intended for a Madrasah. It no longer exists".
18. Shyam Prasad, *Ahwal Gaur wa Pandua*, edited, by A.H. Dani (*MAB*)
19. Francklin, W., *Ruins of Gaur*, 1810-12, I.O.L. MSS 19, also quoted by Grote in Ravenshaw's Gaur.
20. Creighton, H., *Map of Gaur*; Ravenshaw, *Map of Gaur*,; Martin, M., *The history, antiquities, topography, and statistics of Eastern India*, vol. III, London, 1838, Pl. 1; Pemberton, J.J., *Geographical and Statistical Report of the District of Maldah*, Calcutta, 1854, *Map of Gaur*; *ASR*, XV, Pl. XIII; Beveridge, H., *Major Francklin's MS description of Gaur*, in *JASB*, vol. LXIII, 1894, Pt. 1, No. LXIX, 1879, has not mentioned about the Mahajantola mosque, probably because there was no such mosque. It is not known how the Tantipara Mosque came to be regarded as 'Umar Qazi's Mosque, as stated by Ilahi Bakhsh and 'Abid' Ali (f.n. 7 & 6).
21. *ASR*, XV. See also difference in the measurement, given below. *Bengal District Gazetteers Maldah*, Calcutta, 1918 : 91′×44′ externally, 78′×34′ internally; Maitra, A.K. *Ancient Monuments of Varendra (North Bengal) : Principal Ancient Sites and Monuments Hitherto Traced in Varendra*, Rajshahi, 1949, p. 37 : 78′×31′ inside and 91′×49′ outside; 'Abid 'Ali, *Memoirs*, p. 71 : 78′×31′ inside and 91′×44′ outside; *MAB* 91′×44′ externally and 78′×31′ internally; Chakravarti, M.M., op. cit., p. 29 : 78′×31′ internally and 91′×43½ externally; Brown, 71′×44′ internally and 76′×31′ externally.
22. Orme, *Gowre : Description of its Ruins with four inscriptions taken in the Arabic*, copy Orme, MS. OV. 65. 25.
23. f.n. 6. It is interesting to note that the existence of a zenana gallery is not attested by Cunningham. *ASR*, XV; Chakravarti, M.M.; Saraswati, S.K. and *MAB*.

24. Marshall, J. *The monuments of Muslim India*, in *Cambridge History of India*, vol. III, 1928.
25. Ravenshaw, J.H., in his '*Map of Gaur*,' has shown a building called the "Mekha Mosque" to the north of the Guamalti factory. See also the 'Map of Gaur' by Creighton.
26. 'Abid' Ali, f.n. 6, writes, "This (the inscription) seem to point to the mosque having been erected by the son of Shamsuddin Firuz Shah (after whom Pandua was renamed Firuzabad); but the Munshi does not give a copy of the inscription, and it cannot now be traced. If, however, he was correct, the Guamalti Mosque must have been one of the earliest mosques to be erected in either Gaur or Pandua". In the absence of any authentic inscription, it cannot be said that the Guamalti mosque is the earliest mosque in the ancient sites of Gaud and Hazrat Pandua, as stated by 'Abid 'Ali.
27. f.n. 7. Beveridge rightly says that the inscription which refers to, is dated A.H.711 (A.D.1311).
28. Beglar, J.D., *Archaeological Survey of Bengal Report*, 1888, Calcutta, 1888.
29. Victoria and Albert Museum, London, Register.
30. Wali, A., *On some Archaeological Remains in the District of Rajshahi*, *JASB*, 1904, vol. LXXIII.
31. Bloch, T., *AR*, *ASI*, *Bengal Circle*, 1903-4.
32. Gupta, A., *Ruins and Antiquities of Rampal*, *JASB*, 1889, vol. I. pt. I.
33. Wali, A., *On the Antiquities and Traditions of the Jami Masjid and Rauza of Hazrat Muhammad Arab at Sailkuppa*, *sub-Division Jhenidah*, *District Jessore*, *JASB*, 1901, pt. I.
34. Crawford, D.G., *Padua and the Pandua Minar*,in *Bengal Past and Present*, vol. II, Oct, 1908.
35. O'Mallery and Chakravarti, *Bengal District Gazetteer*, Hooghly, 1912.
36. Westland, J., *A Report on the District of Jessore*, Calcutta, 1871.
37. *Sen*, *D*., *Vrihat Banga*, vol. III, Calcutta, 1342 B.S.
38. *ASR*, XV, p. 67, n. 1. Cunningham writes, "As the dimensions of this mosque are variously stated by different authors, I will here bring them together for comparison :
    Creighton gives the dimensions as 170×76 feet.
    Francklin gives the dimensions as 180 feet.
    Ravenshaw gives the dimensions as about 180×80 feet.
    Buchanan gives the dimensions as 180×76 feet.
    My own measurement of 168×76 feet which was made in 1871, was verified in 1879. Creighton gives the span of the arches at 6 feet, but I could not find one of this size; they differed from 5-10¾ to 5-11¼, the mean being 5 feet 11 inches. Similarly I make the walls only 7 feet 11 inches in thickness, while Creighton gives them as 8 feet complete". He, however, omits the measurements given by Orme (170'×80') and Chambers (170'×130')
39. Ahmad, S., *Inscriptions of Bengal*, vol. IV, Varendra Research Museum, Rajshahi, 1960.

IV THE HUT-SHAPED OR CURVILINEAR TYPE

THE architects of pre-Mughal Bengal experimented with a very peculiar type of building art, which is commonly known as hut-shaped or curvilinear type. It is tempting to quote from Fergusson about the development of this distinctive style. "Besides elaborating a pointed-arched brick style of their own, the Bengalis introduced a new form of roof, which has had a most important influence on both the Muhammadan and Hindu styles in more recent times . . . . the Bengalis, taking advantage of the elasticity of the bambu, universally employ in their dwellings curvilinear form of roof, which has become so familiar to their eyes, that they consider it beautiful . . . . certain it is, at all events, that after being elaborated into a feature of permanent architecture in Bengal, this curvilinear form found its way in the 17th century to Delhi, and in the 18th century to Lahore, and all the intermediate buildings from, say A.D. 1650, betray its presence to a greater or less extent."[1]

The characteristic hut-shaped buildings are grouped into (i) *Do-Chala or* two-segmented, (ii) *Chau-Chala* or four-segmented.

(i) Do-Chala Buildings

None of the existing monuments of the pre-Mughal Bengal can be cited as demonstrating the distinctive features of the two-segmented type of architecture, which is obviously imitated from the ordinary *do-chala* huts of any village of Bengal. The indigenous *do-chala* huts are made of two coverings made of bamboo and joined together at the top, thus making a curved ridge with gable ends. As Dani writes, "The eves are curved as before and the ridge is generally crowned with *Kalasa* finials in imitation of the knots found in the original roof."[2] Curved ridges of the roof is also preconditioned by the necessity of throwing off excessive rainfall during rainy season. The earliest known example of *do-chala* building in Bengal is probably the Tomb of Fath Khan at Gaud, who died between A.D. 1657 and 1660. Stapleton erroneously regards it as a Hindu temple, although there was no altar or sanctum inside.[3] Measuring 30 feet 8 inches by 21 feet 5 inches, the Tomb is roofed over by two sloping sides making a ridge at the top and gable ends on the north and south sides. Complete with drooping eves, knots on the top of the ridge, the roof is a perfect copy of a *do-chala* thatched hut. Similar two-segmented roofed buildings are to be seen in the gateway to the Mosque of Shah Muhammad at Egarasindhur, Mymensingh, dated A.H. 1680 and the annexe to the north of the Mosque of Kartalab Khan (Murshid Kuli Khan) at Dacca, dated between A.D. 1700 and 1704.[2]

(ii) Chau-Chala Building

The characteristic hut-shaped *chau-chala* or four-segmented roof type of pre-Mughal Mosques is represented by the *Saith Gumbad* or so called 60-domed Mosque at Bagerhat, Khulna, the Darasbari Masjid and the Chhoto Sona or Small Golden Mosque, both at Gaud.

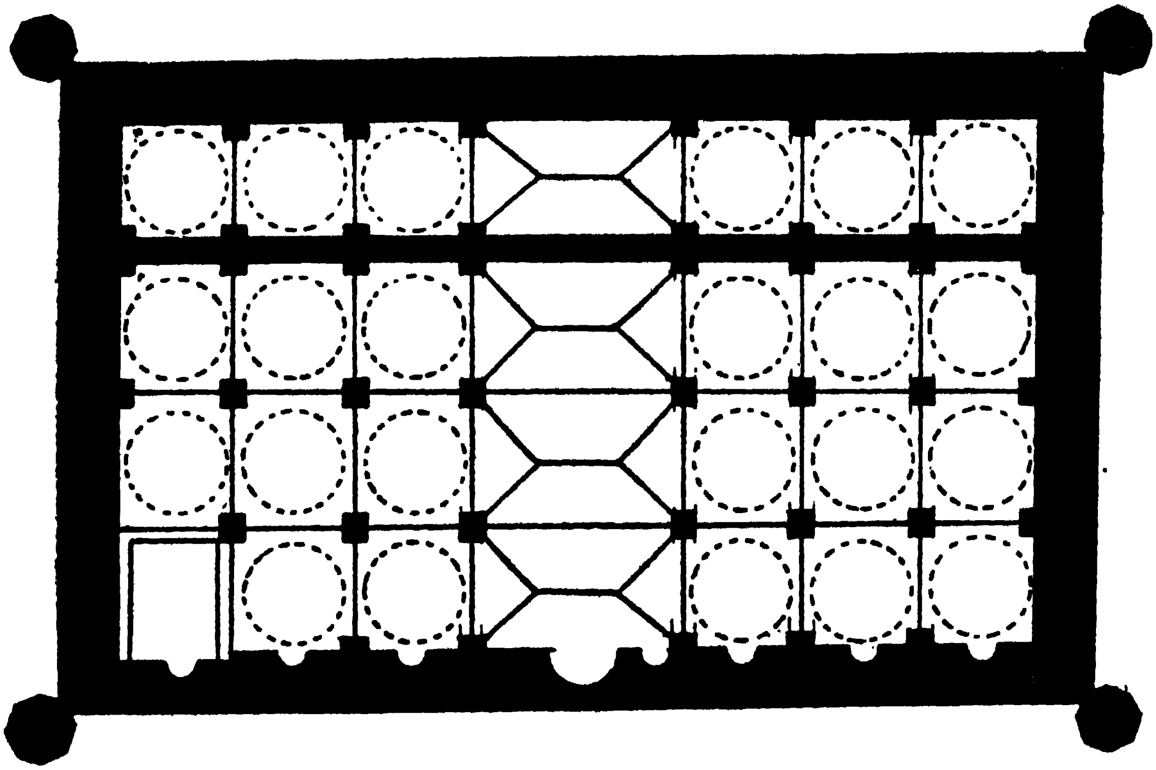


Fig. 27. Gaud : The Darasbari Masjid : ground plan

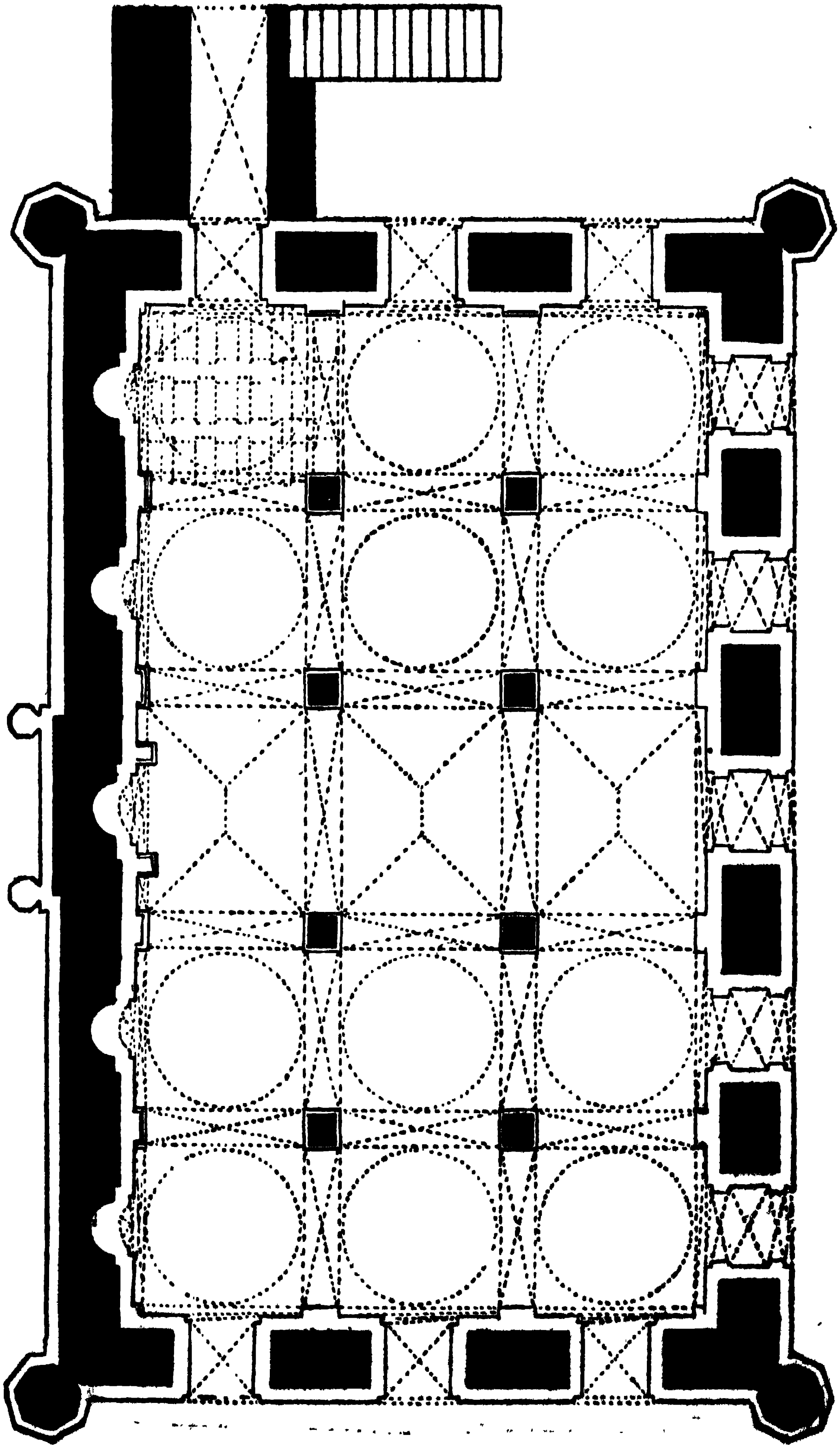
(A) The Saith Gumbad or so-called 60-Domed Mosque at Bagerhat, A.D. c. 1450.

One of the finest examples of the *chau-chala* roof type of building as well as the largest mosque of Bangladesh is the *Saith Gumbad* at Bagerhat, Khulna, (Fig. 29, Pl. XXIV). Dani invents a new style of building art which he calls "the Khan Jahan Style".[2] He says, "The style derives its inspiration partly from the Tughlaq architecture at Delhi, as the spreading bastions at the corners prove, but in general concept it is rooted in the Bengal style of the Later Ilyas Shahi period, though here the buildings are more utilitarian as is clear from the stark plainess of the walls."[2] The style is based on the various characteristic architectural features that mould a building art of a particular period in which an individual plays a minor role. The cross-currents of architetectural ideas and methods in Bengal in the later part of the 13th, 14th and the 15th centuries A.D., as observed in the various typical monuments undoubtedly led to the introduction of four-segmented roof type of mosques, hitherto unknown. It is, however true that Khan Jahan flourished in Southern Bengal, particularly at Bagerhat, Khulna in the middle of the fifteenth century A.D. According to an inscription engraved on his tomb, which is situated three miles to the north-east of the *Saith-Gumbad* Mosque, Khan Jahan died in the night of Wednesday, the 26th of Zil Hijjah and was buried on Thursday, the 27th of the same month in the year 863 (23rd October, A.D. 1459). Khan Jahan, as observed by Gourdas Bysack, "…. *alias* Khanja Ally, a chief of great piety and liberality, who was rusticated from the court

of Delhi, was sent to this place to hold the post of a tehsildar."[4] He held important post of trust under Sultan Nasiruddin Mahmud Shah I, the restorer of the Ilyas Shahi dynasty.

The term *Saith-Gumbad* or Sixty-Domed is a misnomer as the oblong mosque, measuring 160 feet by 108 feet, is roofed over by as many as seventy domes and seven *chau-chala* type covers. The interior is divided into seven aisles, which are solitary examples of their kind in Bengal architecture, by six longitudinal rows of arcades carried on slender carved pillars. A deep central bay divides the Mosque into two equal parts, each having five bays. The central bay which is wider than the side bays is roofed over by a peculiar type of four-segmented or *chau-chala* type of roofs, seven in number. In the words of Dani, "It (*chau-chala* roof) has coverings on four sides, which are more or less curved in some domical, in others flatter, but they never make a straight pyramid, and secondly the coverings have eves drawn out lower down to a point at each corner, thus making the roof-base curved like the segment of a circle. This has been copied in brick architecture to cover a rectangular space as against an ordinary dome which is constructed over square."[2]

The interior of the *Saith Gumbad* Mosque presents a forest of column, which led Dani to compare it with a "*darbar hall* than a mosque."[5] From architectural standpoint it provides an impressive vista of a side prayer hall, which is both majestic and awe-inspiring. The *qibla* wall is carved with ten concave semi-circlular niches, the central one being bigger than the side ones. The transition from the square spaces into circle is attained, like that of the Great Mosque at Chhoto Pandua, Hughli, by pendentives. The central bays recall the central nave of the Adina Masjid at Hazrat Pandua (Pl.II) and the Gunmant Masjid (Fig.12) at Gaud. The multi-domed roof is reminiscent of that of the Khirki and Kalan Masjids at Delhi, built by Firuz Shah Tughlaq in the 14th century A.D. Though it is devoid of any flanking corridor in the eastern side like that of the Bara Sona Masjid at Gaud the *Saith Gumbad* betrays the usual architectural features already manifest in earlier monuments of Bengal, namely, curved cornice, circular corner towers, etc. There is a postern gate in the *qibla* wall like that of the Adina Masjid at Hazrat Pandua. Dani's remark that in Bengal the only buildings that copy the Tughlaq style are those erected by Khan Jahan in Khulna District[6] is hardly justified for two reasons: (a) many of the distinctive features of the *Saith Gumbad* Mosque are already developed in the monuments, built prior to A.D. 1459, namely, corner towers were found in the Mosque of Mollah Simla, Hughli (A.D.1377) and the Eklakhi Tomb at Hazrat Pandua (early 15th century A.D.); curved cornice appeared earlier than the *Saith Gumbad* Mosque in the Mosque of Mollah Simla and in the Mosque of Binat Bibi at Dacca (A.D. 1457); a forest of columns in the prayer Hall is to be found in the Great Mosque of Chhoto Pandua, Hughli (early 14th century A.D.); (b) multi-domed oblong type was seen far earlier than the 14th century mosques of Khirki and Kalan and the Jami' Masjid at Kotla, Delhi, in the Mosque of Zafar Khan Ghazi at Tribeni (A.D. 1298). The most novel feature introduced by the



28. Gaud to Sona Masjid : gro plan

Saith Gumbad is undoubtedly the four-segmented roofs that cover the central bay of the mosque, which is repeated in later monuments.[2]

(B) The Darasbari Masjid and Madrasah at Gaud
(A.H. 884/A.D. 1479)

The Darasbari Masjid (Fig.27 & Pls. XXXVI-XXXVIII) and Madrasah are situated half a mile to the south-west of the Kotwali gate in 'Umarpur between Mahdipur and Firuzpur.[1] King who visited the site in 1846 reports about a mosque so-called from a college which stood near the existing handsome brick building of the mosque.

The term *Daras* is transcribed from the Arabic word درس or 'exhortation', 'commemoration' and *Bari* meaning house or apartment. Therefore, Darasbari denotes a theological college or *Madrasah* in an ordinary sense of the term. The Ilyas Shahi dynasty which was restored by Sultan Mahmud Shah in A.H. 841/A.D. 1437, ushered in a new era of Persian cultural revival in Bengal. It is presumed that the *Madrasah* in question was a famous centre of learning, particularly Persian. The combined Mosque and *Madrasah* of Darasbari at Gaud undoubtedly stand in the same relationship as the *Madrasah*-Mosque of Bibi Khanum at Samarqand as well as those of Gawhar Shad at Mashhad. The *Madrasah* is now fully excavated.

Ilahi Bakhsh saw "a large mosque built of brick with stone pillars" in 'Umarpur.[8] The mosque owes its appellation to the adjoining *Madrasah* or "academy" which has long since disappeared. The Darasbari Masjid is an oblong structure, measuring 98 feet by 57 feet externally.[9] Unlike the square domed and the multi-domed type of mosques, the Darasbari Masjid follows the indigenous curvilinear roof type of mosque, initiated by the *Saith Gumbad* Masjid at Bagerhat—the type which crystallized in the Chhoto Sona Masjid, dated A.H. 899-925/A.D. 1493-1519.

Although utterly ruined, the Masjid can well be reconstructed from the existing remains. The oblong prayer chamber is divided into two distinct apartments on the north and the south by a central nave leading to the main *mihrab*. The central nave recalled the arrangement of the nave of the Adina Masjid at Hazrat Pandua, and also the Gunmant Masjid at Gaud. Ponderous brick piers carry brick arches, running longitudinally on each side of the central nave, and separate it from the square side halls.

The central chamber of Darasbari Masjid is 51 feet by 25 feet 6 inches, being roofed over by a Bengali curved roof. There is, however, considerable controversy among scholars about the roofing method of this mosque. Both 'Abid 'Ali[3] and Saraswati[10] think that the central nave was covered by a long vault. On the contrary, Lambourne[9] states that the roof of the building is similar to that of the *Bara-dawari*, namely, the Great Golden Mosque, with 28 domes, supported on internal arches. He continues that each of the 4 transverse aisles carries 7 domes. In point of fact there are only 18 domes, in each of the side halls, instead of 28 as thought by Lambourne, the central nave being covered by a hut-shaped *chau-chala* type of roof.

The absence of any corbelled pendentive in the nave wall of the Darasbari Masjid,

coupled with its oblong plan, renders it quite improbable that it was ever roofed over by domes. Dani contends, "At the top corners no trace of the corbelled pendentive is seen and, therefore, it could not have been covered by hemispherical domes. Instead, traces of lateral arches are still existing, which suggest that the central nave was roofed over by three uniform covers"[2]. This "cover" cannot be a barrel-vault, as comparison with the ribbed barrel-vaults of the Adina Masjid (Fig. 6 & Pl. II) as well as the Gunmant Masjid (Fig. 12) reveals conspicuous differences of technique. On analogy with the existing lateral arches in the vestibule of the Lattan Masjid also at Gaud, and in an earlier example at the *Saith Gumbad* Masjid at Bagerhat (Pl. XXIV), Khulna, it is clear that the central nave of the Darasbari Masjid was covered by three parallel hut-shaped roofs of *chau-chala* type. Therefore, the Darasbari Mosque provided the earliest known example of a series of hut-shaped *chau-chala* (four-sided) roofs in Gaud, the ancient capital of Bengal. The *chau-chala* type of roof, however, differs from the *do-chala* or Bungalow type observed in the tomb of Fath Khan within the precincts of the Qadam Rasul, built in the 17th century A.D.[3] Examples of the *chau-chala* type roof are to be seen in the vestibule of the Lattan Masjid (Pl. XIX) at Gaud, dated 16th century A.D. and the Chhoto Sona Masjid, also at Gaud.

The central nave communicates with the northern and southern prayer halls by three pointed arches on each side. Each side hall measures 37 feet 4 inches by 38 feet and 9 inches.[2] It is divided into three transverse aisles by arcades, each carrying three transverse arches. These arches spring from stone pilasters attached to the side walls and square chamfered stone pillars.

In close conformity with the general lay-out of Bengali mosques with an indispensable zenana gallery, the Darasbari mosque had a platform in the northwest corner of the *liwan*, which has long since disappeared. Traces of the zenana platform and the lattice screen which enclosed and veiled the gallery have been found along with unusually massive supporting pillars and the remains of a flight of steps outside the northern wall of the mosque. The gallery measures 18 feet by 11 feet and is entered, like that of the Tantipara Masjid from the northern side of the *liwan*, though a porch was built outside the northern wall.

The Darasbari Masjid has a semi-circular *mihrab* (Pl.XXXVII) placed in the centre of of the *qibla* wall, which is bigger than the side niches. The most curious feature of of the central *mihrab* is the elegant multifoil arch with an "ogee" curvature at the crown. Similar *mihrab* arches also appear in the niches of the Dhunichak Masjid (A.H. 841-93/A.D. 1437-87) at Gaud (Pl. XXIII), the mosque at Bagha (A.D. 1523), Rajshahi (Pl. XXX), and the mosque at Kusumbha, Rajshahi (A.D. 1558) (Pl. XXXI). The niches of the Darasbari Masjid are carried by attached pillars, built of bricks, instead of the usual stone pilasters as seen at the Adina Masjid and the Gunmant Masjid. In having a pulpit to the north of the central niche and a subsidiary *mihrab* to the south, the central niche of the Darasbari Masjid (Pl. XXXVII)

recalls similar arrangements found in the *mihrab* wall of the Adina Masjid (Pl. II). The pulpit is utterly destroyed, leaving only traces of the flight of steps and a niche of the canopied platform.

In each of the side prayer halls, there are three *mihrabs* of similar design with brick tympana of curious stucco work. The *qibla* wall in the side halls still retains brick stalactite pendentives which supported the springing of the brick domes. Stone facings as well as stone pilasters are still to be seen in the western wall of the mosque.

In front of the *liwan*, there is a vestibule in the Darasbari mosque, providing a covered entrance to the *liwan*. This conspicuous feature appears for the first time in Gaud in the Chamkatti Masjid (Pl. XVII), (A.H. 883/A.D. 1478), and anticipates a similar feature in the Bara Sona Masjid at Gaud (Pl. XXXIII). Curiously enough, it survived in the Mughal period, as demonstrated by the tomb of Dara Begum (Fig. 20), near the city of Dacca, built in the middle of the 17th century A.D.[2]

Corresponding to the hut-shaped roof of the central nave, there is a *chau-chala* in the middle of the vestibule, flanked by three small domes in each side. Thus, the *liwan* is entered by seven pointed arches, the central one being bigger than the others. The vestibule measures 16 feet 6 inches broad, extending over the whole length of the eastern side.

It is quite likely that there were six buttressed corner towers in the Darasbari Masjid (Pl. XXXVI), four at each angle of the building and two at the corners of the verandah. Although the shape of these towers cannot now be determined, the bases of these towers are still traceable.

King states that an inscription now on a new mosque at English Bazar is said to have belonged to the Darasbari Masjid, built by Husain Shah in A.H. 907.[11] This epigraphic record was traced by Westmacott in a little modern mosque, north-west of the English Bazar police station and published by Blochmann.[12] It appropriately begins with the tradition of the Prophet: "Search after knowledge even if it be in China" which is applicable to a *Madrasah* rather than to a Mosque. This inscription, however, cannot be assigned, on dating grounds, to the Darasbari Mosque or its ad-joining *Madrasah*, which being a contemporary building, must be dated to the 15th century A.D. The inscription referred to by King probably belongs rather to the Belbari Madrasah, shown by Cunningham to the north of the Small Sagar Dighi, bearing the date A.H. 907/A.D. 1502.[7]

Ilahi Bakhsh discovered an inscription in the jungle near to the Darasbari Masjid recording the erection of the mosque by Yusuf Shah in the year A.H. 884/A.D. 1497, which has been deciphered by Cunningham and Blochmann.[12] The text and the translation are as follows:

Text :

قال الله تعالى : و ان المساجد لله فلاتدعوا مع الله احداً - وقال النبى صلى الله عليه و سلم:
من بنى مسجد الله بنى الله له قصرا فى الجنة مثله- قد بنى هذا المسجد الجامع السلطان العادل

الاعظم مالك الرقاب و الامم السلطان ابن السلطان ابن السلطان شمس الدين ابو المظفر يوسف
شاه السلطان ابن باربك شاه السلطان بن محمود شاه السلطان خلد الله ملكه و سلطنته و افاض
على العالمين احسانه و بره في سنة اربع و ثمانين و ثمانمائة هجرية -

Translation : "Almighty Allah said : 'Surely all mosques belong to Allah, so do not associate any one with Allah.' The Prophet has also said : 'Whosoever builds a mosque for Allah, Allah will build for him a similar palace in Paradise'. This Jami' Masjid was built by the Just and Great Sultan, Lord of peoples and nations, the Sultan, son of the Sultan, Shams-ud-duniya wad-Din Abul Muzaffar Yusuf Shah, the Sultan, son of Barbak Shah, the Sultan, son of Mahmud Shah, the Sultan. May Allah perpetuate his rule and sovereignty and may his generosity and benevolence be diffused through the whole world! (Dated) in the *Hijra* year eight hundred eighty four." (A.H. 884/A.D. 1479).

Carved in *Tughra*, the Arabic inscription measures 11 feet 3 inches in length and 2 feet 1 inch in height. It is now in the Calcutta Museum. A few discrepancies are, however, discernible between the reading of Ilahi Bakhsh and those of 'Abid 'Ali.[8] Ilahi Bakhsh reads the words : الاعدل , بن , هجره اربع و ثمانين و ثمانمائة as against 'Abid 'Ali's readings, العادل , ابن , اربع و ثمانين و ثمانمائة هجرية 'Abid 'Ali appears to have read the inscription correctly. Shamsuddin Ahmad while editing it, seems to have left out the word سنة . The Darasbari inscription maintains the *Tughra* style of calligraphy as seen in the records of the Chamkatti Masjid and the Tantipara Masjid, which are in the British Museum.

Architecturally speaking, the Darasbari Masjid demonstrates the finest achievement of stucco ornamentation. Belonging to the same period, it is typologically close to the Chamkatti Masjid and the Tantipara Masjid in surface encrustation. Dani regards the ornamental motifs of the Darasbari Masjid as "better proportioned in its various parts and harmoniously combined to have an effect of grace". He further adds, "The ornamentation that we now see, is not only boldly brought out but they are also judiciously distributed over the various parts of the building so as to enhance their beauty in detail."[2]

Saraswati observes,, "This type (Type A of the Text; oblong Type with a vaulted central nave and multi-domed side wings) may be said to be characteristic of the 14th century A.D. Two other examples of the type (the Gunmant Masjid and the Darasbari Masjid) at Gaur, have been sought to be dated in the 15th century. But such dates are based on uncertain facts (?). Stylistically, they are essentially analoguous to the Adina and do not appear to be far removed from it in date".[10] Dani rejects this view and observes the differences in the architectural style of the 14th century and the 15th century Bengal. While the Adina Masjid exhibits the vault and dome type of mosque, the Darasbari Masjid demonstrates the beginning of a new form of architecture in the typical Bengali hut-shaped roof, generally known as *chau-chala*. Unlike the Darasbari Masjid, the Adina Masjid has no vestibule on eastern side. Although in many architectural features and decorative details, the Darasbari Masjid is reminiscent of the Adina Masjid, it cannot be placed either in the early Ilyas Shahi period

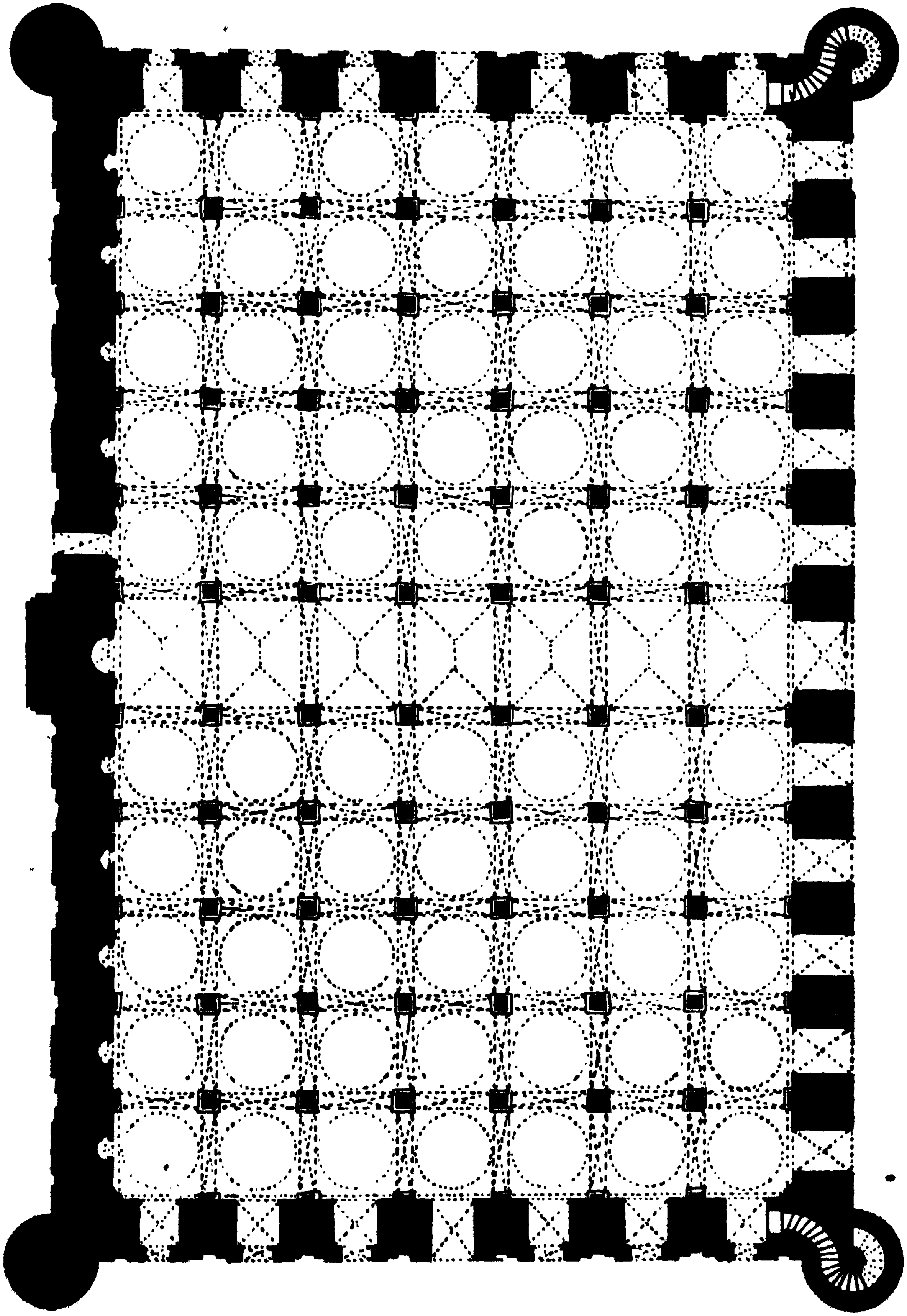


Fig. 29. Bagerhat (Khulna) : The so-called '*Saith Gumbad*' Mosque : ground plan

(A.H. 740-817/A.D. 1338-1414), as Saraswati thinks, or in the Husain Shahi period (A.H. 899-925/A.D. 1493-1519), as stated by King. Dani rightly says, "These similarities only prove the continuance of the old idea, but the Darasbari is a product of the Later Ilyas Shahi period, as the new developments clearly bear out".[2]

(C) The Chhoto Sona Masjid at Gaud
(A.H. 899-925/A.D./1493-1519)

The Chhoto Sona Masjid (Fig. 28 & Pls. XXXVIII--XLII, Frontisiece) or Small Golden Mosque,regarded as "the gem of Gaur "[7] by Ravenshaw, is situated in the southern most quarter of the city, on the eastern side of the Nawabganj road, commonly known as Firuzpur.[13] It is a little more than 1 mile to the south of the Kotwali Gate and 14 miles from English Bazar.

The appellation of the Small Golden Mosque is self-explanatory. Creighton rightly observes," . . . . the remains of gilding upon its mihrab wall is still visible, and may account for the epithet of golden given to this and the former Great Golden Mosque edifice".[7] Cunningham supports his views: "It received its present name of the 'Little Golden Mosque' from the quantity of gilding employed in its ornamentation, of which some still remains to justify the popular appelation.Creighton first noticed it, and I verified his statement myself by inspecting some remains of gilding found by my servant".[7] According to the legend current in the locality as it is also in the case of Lattan Masjid, the building was richly encrusted with gold paints in the tile decoration as well as gilding in stone. The British Museum is in possession of a superb piece with the image of Buddha (Pl. XLII a-b) on one side and with shallow diaper work on the other showing traces of gilding. This latter is undoubtedly Muslim. In comparison with the Great Golden Mosque in the centre of the city, the Small Golden Mosque is smaller in scale, and hence it is known as Chhoto or little. King says that the Chhoto Sona Masjid is also known as "the Khwaja-ki-Masjid", built of stone in the reign of Husain Shah, dated A.H. 927.[11] Apparently his observations are based on Ilahi Bakhsh's reference to it that it was built by a Khoja or Khwaja, meaning a eunuch.[8] It is presumed that it was built by Wali Muhammad during the reign of Husain Shah, as is evident from an undated inscription.[7]

The Small Golden Mosque is a neat little oblong building of great architectural merit (Frontispiece). It is 82 feet by 52½ feet externally and 70 feet 4 inches by 40 feet 9 inches internally. This splendid monument is 20 feet high.[14] Two rows of charmfered pillars, each carrying 5 pointed arches, divide the interior of the Mosque into 3-longitudinal aisles. In each row there are 4 pillars of black basalt which in their moulded string-courses, cubical pedestal, dog-tooth ornament and square abacus recall those of the supporting pillars of the zenana gallery in the Adina Masjid. Evidently they are much more attenuated in shape in the Chhoto Sona Masjid than those in the Adina Masjid. It is hard to ascertain their origins, but considering the enormous quantity of Hindu spoil used in the Chhoto Sona Masjid (Pls. XLI, XLII) and

comparing its pillars with the carved stone pillars at the Bari Dargah which originally must have been brought from the Adina Masjid it may be said that they were taken from unidentifiable Hindu temples.

In plan, the Chhoto Sona Masjid resembles the Darasbari Masjid (Pl. XXXVI) (A.H. 884/A.D 1479), which is noticeably earlier. It is divided by a broad central nave into the northern and the southern prayer halls (Fig. 28). The central nave, which is bigger than the side wings, is 14 feet 5 inches wide in contrast with the side halls which measure 11 feet 4 inches broad.[2] The roofing method of this central nave is reminiscent of the Darasbari Masjid. Cunningham says. "The three middle bays forming the nave are each roofed with four flat segments of vaulting meeting in the middle".[7] In the light of Cunningham's description, Ravenshaw's observation that the Mosque is covered with "fifteen domes supported on massive hornblende black basalt pillars . . ."is misleading.[7] Saraswati supports Cunningham when he says, "The central bay corresponding to the central *mihrab* is spanned by three superstructures, each consisting of four flat segments meeting in the middle--in the shape of the curved thatched roof of Bengali huts."[10] In point of fact, like those of the Darasbari Mosque, there are Bengali *chau-chala* or four segmented hut-shaped domes in the roof of the central nave. As Dani puts it, they show, "a decoration copied from bamboo frame work, a design which emphasizes the local character of the dome."[2] Buchanan writes about the Bengali hut : "The style of private edifices, that is proper and peculiar to Bengal, consists of a hut with a pent-roof, constructed of two sloping sides which meet in a ridge forming the segment of a circle, so that it has a resemblance to a boat when overturned. This kind of hut, ... being peculiar to Bengal, is called by the natives Bangola". This description of the *do-chala* has a close similarity to the *chau-chala* roof in all its essential features, with the exception that in the *chau-chala* there are four segments instead of two. Even Abu'l Fazl attests the construction of Bengali shaped huts, made of bamboo. The contribution of Bengali School to the history of architecture in general rests in these indigenous types of the *do-chala* and *chau-chala* roofs, which inspired the later architects of Bengal in the British period as well as the Mughal.

Dani says, "This idea of a central nave with side-wings, is obviously, a survival of that of the prayer-chamber at the *Adina Mosque*."[2] However, the vaulted central nave of the Adina Masjid (Fig. 5. & Pl. II) can hardly serve as a prototype for the *chau-chala* roofed central nave of the Chhoto Sona Masjid (Fig. 28 & Frontispiece). In typological ancestry it recalls that of the *Saith Gumbad* Mosque (Fig. 29 & Pl. XXIV) at Bagerhat, Khulna, dated middle of the 15th century A.D. rather than that of the Adina Masjid at Hazrat Pandua. This type of roof also appears in the Darasbari Masjid as well as in the central bay of the vestibule in the Lattan Masjid, as already demonstrated. The central nave dividing the *liwan* certainly appears for the first time in Bengali architecture in the Adina Masjid, which was repeated in the Gunmant Masjid (Fig. 12).

The prayer halls to the north and the south are roofed over by 6 hemispherical domes each, 2 in each of the 3 aisles. Cunningham points out, "Externally only five domes are visible over middle aisle; but they are of different heights, diminishing from the central dome to the end domes. As the bays are of the same size, this exterior lessening of the domes must have been arranged by diminishing their thickness."[7]

The Small Golden Mosque is entered from the east by five pointed cusped arched openings (Frontispiece), embellished with fringe of spearheads which appear in the pulpit of the Adina Masjid at Hazrat Pandua as well as the Gumti Gate at Gaud. Each of the doorways is enclosed with a rectilinear frame of exquisite stone carving. The northern and the southern walls of the mosque are also pierced by 3 arched doorways each, directly leading to the aisles. The entrance from the north-west corner of the Mosque is a porch, evidently meant for the ladies, which leads to the zenana gallery. It is a two-storied square structure, which according to Ravenshaw is, "a carved throne or takht."[7] The gallery is supported by slender stone pillars of black basalt which carry horizontal stone beams of the platform in the same fashion as in the Adina Masjid. The entrance porch attached to the north-west side of the building was also two-storied, and was probably covered with a canopy. A flight of steps leads to the porch which still exists today. There seems to be no doubt about the existence of a subterranean passage leading to the northern *liwan* just below the zenana gallery. The ladies of the Royal Harem entered the gallery through an arched opening, which is placed higher up in the exterior wall than those at the side entrances. In Creighton's painting of the interior of the Chhoto Sona Masjid the zenana gallery does not appear, although he has shown remains of a porch to the northwest of the masjid.

Bearing in mind the orthodox practice of the Muslims in enclosing the zenana gallery with perforated screens as noticed in the Adina Masjid, the Tantipara Masjid and the Gunmant Masjid, it is quite logical to add that the ladies' platform at the Chhoto Sona Masjid was, in the words of Cunningham, "partitioned off by screens of trellis work".

The *qibla* wall of the Chhoto Sona Masjid which had six semi-circular niches of exquisite ornamental designs in stone carving, fell in during the earthquake of 1897. Since 1900, the Department of Archaeology has restored the walls. Bloch says that stone cutters from Benares were employed to restore the damaged ornamental designs of the mosque.[15]

'Abid 'Ali says, "The face stones of the prayer niches of the west wall were removed when the wall collapsed. It is understood that the whole structure of one of the prayer niches is now in a Museum in England" (the Royal Scottish Museum, Edinburgh).[2] It was the central *mihrab* of the Chhoto Sona Masjid, Gaud (See Appendix II).

In close conformity with the octagonal corner towers of the Eklakhi Mausoleum (Pl. XVI) at Hazrat Pandua and the Chamkatti Masjid (Pl. XVII), Gaud and Baba Adam's Mosque at Rampal, Dacca, the Chhoto Sona Masjid has similar four octa-

gonal towers, one at each angle of the building. There are also two projecting buttressed towers at the back of the central *mihrab*.

The Chhoto Sona Masjid demonstrates a triple cornice rather than the double cornice as shown by the Eklakhi Mausoleum. The cornice is curvilinear, with gutters for draining water from the roof. The hemispherical domes are drumless and the transsition from the square to the circle is attained by stalactite brick pendentives.

The Chhoto Sona Masjid is essentially a brick building, cased in black basalt. Dani's description of "brick-and-stone" style is very confusing, for stone used for facing a brick core can be traced as far back as the Mosque of Zafar Khan Ghazi at Tribeni, which Dani considered, most confusingly, as an example of the Mamluk style. About the Chhoto Sona Masjid Cunningham points out, "The walls are of brick completely faced with stone outside, but only up to the springing of the arches inside, all the arches and domes being of brick".[7] Many of the stones used for casing the wall to give the illusion of a stone monument from distance are evidently Hindu. To quote Creighton, "The stone used in these mosques had formerly belonged to Hindu temples destroyed by the zealous Muhammadans," as will be evident from an inspection of Plates XLI and XLII, representing two slabs taken from this Building.[7] Creighton's painting XVI represents a stone with the image of the Hindu deity, *Vishnu*, in the Boar incarnation, with shallow diaper carving on the reverse side. The figure of Sivani, the consort of Siva, one of the Hindu triad, appears on another stone sketched by Creighton (painting XVII). The mother figure evidently drawn from sculptured stones used in the Small Golden Mosque is that of Brahmani, given in Plate XLIa (Creighton's painting XVII). It is very interesting to point out in connection with the figure of Brahmani that it agrees in meticulous execution of details and perfection of style with that of the British Museum piece. Therefore, it is certain that Creighton drew his sketch from this black stone which curiously displays diaper work on the other side (Pl. XLIb) similar to that of Creighton's Plate XVI. Arabesque design in shallow stone carving, resembling delicate tapestry, appears also in another superb black basalt piece, shown in Plate XLIb, now in the British Museum. It has the image of a seated Buddha on one side thereby again indicating the utilization of non-Muslim material (Pl.XLIIa). This fascinating piece may well be attributed to the Chhoto Sona Masjid on the grounds of the close similarity of its diaper work with that of the stone sketched by Creighton in his Plate XVI, and of the existence of gilding in the shallow carvings of the diaper work.

Creighton says, "It appears to have been the general practice of the Muhammadan conquerors of India, to destroy all the temples of the idolaters, and to raise Mosque out of their ruins."[7] The statement is of course a gross exaggeration, for innumerable contemporary Hindu and Buddhist temples still exist in the cities of India once conquered by the Muslims. 'Abid 'Ali seems to have carried the observation of Creighton further when he remarks, 'It seems to the writer that the builder of the Mosque had collected the stones containing the figure of the Hindu gods from the citadel of

Gaur where temples must have existed in the time of the earlier Hindu kings."[3] Incidentally Ravenshaw gave illustration of sculptured stones, representing stone capitals and *Makara* gargoyles, which have been discovered in Hazrat Pandua. Westmacott, however, thinks that the circular stone given in Ravenshaw's Plate XXX "formed a part of the high ornament or pinnacle with which both the Buddhist Stupas and later Hindu temples were usually crowned. I have seen similar pieces at Debkot, and elsewhere, often with a perforation through the centre, through which I conjecture that a rod of metal, or perhaps a column of molten lead may have been passed, to retain it in an upright position".[16] In the event of a prodigious abundance of Hindu temple building material scattered all over the province, it is difficult to pin-point the provenance of each stray sculptured piece used in the mosques of Gaud and Hazrat Pandua. The existence of any Hindu temple in the citadel or outside Gaud as 'Abid 'Ali tells us, is as difficult to prove as to obviate the fact that no material was taken from Devikot or Bannagar in Dinajpur. Contradicting the views of 'Abid 'Ali, Stapleton says, "On the other hand from Manrique's statement that, in 1641, he saw figures of idols standing in niches surrounded by carved grotesques and leaves in some stone reservoirs in Gaur, it is possible that except during periods of persecution the Muhammadan Kings of Gaur allowed idols and Hindu temples to remain unmolested in their capital".[3] Although examples of the use of Hindu material are not scarce, as proved by the discovery of three sculptured figures from Mahisantosh with Muslim ornament on the reverse side, now in the Varendra Research Society Museum, it would be wrong to say after Creighton that all the Hindu temples were desecrated by the Muslims to procure building material. On the other hand, the black stone *mihrab* of the Chhoto Sona Masjid, now in the Royal Scottish Museum, Edinburgh (See Appendix II) is the finest example of the Muslim stone carver's art. It is a freshly quarried black stone without any trace of iconography. In the richness and variety of ornament and designs, crispness and sophistication of the art of chiselling, the *mihrab* in the Scottish National Museum is hardly surpassed by any of its kind and marks the climax of the Bengali school of ornamental art.

Although some of the stones used in the Chhoto Sona Masjid display great pre-Muslim antiquity many polished stone *mihrab* panels, string-courses, ornamental motifs, for instance the ornate bell and chain, undoubtedly display characteristic Muslim workmanship. The Edinburgh specimen of the *mihrab* does not appear to have been ever carved on the reverse as well as the three niches discovered by the Varendra Research Society from Mahisantosh, Rajshahi.

In connection with the foundation stone of the Chhoto Sona Masjid, Cunningham writes, "The inscription slab which is placed over the middle doorway has lost both the upper right hand corner and the lower left hand corner, and with the latter the Hijra date of the execution of the building; but as the King's name is given, we know that it was built between the years A.H. 899 and 929 or A.D. 1494 to 1524."[7] In fact it is dated from the period of Sultan Husain Shah (A.H. 899-925/A.D. 1493-1519). The text and the translation are as follows :

Text :

بسم ا لله ا لرحمن ا لرحيم -

قال الله تعالى انما يعمر مساجد الله من امن باالله و اليو م الاخر - وقام الصاواة و اتى الزكو اة
و لم يخش الا الله - فعسى اولئك ان يكونو امن المهتد ين - وقال النبى صلى الله عليه وسلم من بنى
مسجداً الله بنى الله له بيتاً فى الجنة مثله - عمارة هذا المسجد الجامع فى عهد سلطان السلاطين سيد
السادات منبع السعادات - ارحم المسلمين والمسلمات معلى كلمات الحق والحسنات - المويد بتائيد الديان
المجاهد فى سبيل الرحمن خليفة الله با حجة و البرهان - غوث الاسلام و المسلمين علائو الدنيا و الدين
ابو المظفر حسين شاه السلطان الحسينى - خادالله ملكه و سلطانه - بنى هذا المسجد الجامع خالصا
مخلصا متوكلا - على الله ولى محمد بن على المخاطب بخطاب مجلس المجالس مجلس منصور -
نصره الله تعلى فى الدنيا والاخرة - و تاريخه الميمون فى الرابع عشر من شهر رجب المبارى رجب الله
تدره و شانه -

Translation : "In the name of Allah, the Clement and Merciful! Almighty Allah says, 'Surely he will build the mosques of Allah who believes in Allah and the last day, and established prayer, and offers alms, and fears no one but Allah : and they will soon be guided'. And the Prophet—May Allah bless him—says : 'He who builds a mosque for Allah, Allah will have a house like it built for him in Paradise'. The erection of this Jami' Masjid took place during the reign of the Sultan of Sultans, the Saiyid of the Saiyids, the Fountain of Auspiciousness, who has mercy on Muslim men and women, who exalts the words of truth and good deeds, who is assisted by the assistance of the Supreme Judge, who strives on the path of the Almighty, the Viceregent of Allah by deed and proof and the Defender of Islam and the Muslim, 'Ala-ud-duniya wad-Din Abul Muzaffar Husain Shah the Sultan, Al-Husaini—May Allah perpetuate his kingdom and his rule! This Jami' Masjid is built from pure and sincere motives and from trust in Allah by Wali Muhammad, son of 'Ali, who has the title of Majlisul-Majalis Majlis Mansur—May Almighty Allah assist him both in this world and in the next. Its auspicious date is the 14th day of Allah's blessed month of Rajab!—May its value and dignity increase." (year is broken off).

Cunningham writes, "In the mid-line of this inscription there are three ornamental circles, each contaning a name of God. That in the middle has *Ya-Allah,* "O God," that on the right has *Ya-Hafiz,* "O Guardian," and that on the left has *Ya-Rahim,* "O Merciful".[7]

NOTES AND REFERENCES

1. Fergusson, J., *A History of Indian and Eastern Architecture*, London, 1910.
2. *MAB*.
3. 'Abid 'Ali Khan, *Memoirs of Gaur and Pandua*, edited by H.E. Stapleton, Calcutta, 1913.
4. Bysack, G, *JASB*, 1867.
5. *AR, ASI, Eastern Circle*, 1912-13.
6. Brown, P. *Indian Architecture (Islamic period)*; Roy, G., *The Khanja Ali Mosque at Khulna*, in *The Indian Antiquary*, 1910, vol. XXXIX: Notes and Quarries.
7. *ASR*., XV; Creighton, H., *The Ruins of Gaur*, London, 1817 ; Ravenshaw, J.H., *Gaur: its Ruins and Inscriptions*, London, 1878.
8. Ilahi Bakhsh, *Khurshid-i-Jahan Numa*, edited and translated by H. Beveridge, in *J.A.S.B.*, vol, LXIV, Part I, 1875.
9. Lambourne, G.E., *Bengal District Gazetteers*, Malda, Calcutta, 1918. 'Abid' Ali gives the measurements as 111 -6"X67' -6"; Dain, states 99'-5"X38' -9" as internal measurements, *MAB*
10. Saraswati, S.K., *Indo-Muslim Architecture in Bengal*, *JISO*, vol. IX, 1941.
11. King, L.L.B., *Notes on the removal of relics from Gaur* in *PASB*, 1875.
12. Blochnann, H., *Contributions to the History and Geography of Bengal (Muhammad period)* in *JASB*, 1874.
13. Francklin, W., *Ruins of Gaur*, 1810-12, IOL, MSS, 19, He refers to another golden mosque at the village of Chandy, near to the south-eastern entrance of the city. In the Revenue Survey Map prepared by Pemberton in 1847-48, as well as in the map drawn by Creighton, Chandy appears as a suburb to the south of the Small Golden Mosque. Curiously enough, this picturesque mosque was not described by both Francklin and Shyam Prasad.
14. Creighton, H., *The Ruins of Gaur*, London, 1817, Pls. VI and VII gives the measurements as 53'X41' ½" height 21' over which the domes rise 10' high.
15. Bloch, T., *AR, ASI, EC*, 1908-9.
16. Westmacott, E.V., *Ravenshaw's Gaur*, in *Calcutta Review*, vol. LXIX, 1879.

4

CONCLUSIONS

full archaeological study of the material presented above must necessarily entail extensive exploration and some degree of intensive and *ad-hoc* excavation. Much more work still needs to be done on the environment of the buildings discussed, the better to relate them with their immediate human associations; for although the mosque may be studied *per se* for its architectonic or its aesthetic values, it must not be forgotten that its prime *raison d'etre* is as an exponent of human values and archaeologically speaking the mosque is a habitation site.

Cunningham's uncharitable remark on the building materials of Bengal in pre-Mughal times is hardly justified. He observes, "Most of the Bengali buildings are of brick, and the poorness of the materials seems to have cramped the genius of the architects as their designs are always tame and feeble, and their ornamentation is confined to an endless and monotonous repetition of a multiplicity of petty details".[1] On the other hand Burrow says that the bricks have been so well made and burnt that the marks of the fingures of the makers are still to be seen on many of the pieces.[2] Contradicting Cunningham's contentions Rennell earlier points out, "these bricks (Gaud) are of the most solid texture of any I ever saw, and have preserved the sharpness of their edges, and smoothness of their surfaces through a series of ages".[3] The Indian Museum and the *Bangiya Sahitya Parishad* Museum both at Calcutta, had in their collections a large number of carved and enamelled bricks, obtained from Gaud and Hazrat Pandua, some measuring 5″×3″.20×1″.70 ; 4″.70×3″.05×0″.95 ; 4″×3⅞″×1¼″.[4] L.B.B. King was commissioned to collect from the ancient sites of Malda specimens of carved or coloured bricks, ornamental tiles and mouldings, particularly from the Adina Masjid, the Gunmant Masjid, the Lattan Masjid, the Darasbari Masjid, the Dakhil Darwaza, the Great Golden Mosque, etc.[5] In comparison with the large size of bricks used in Hindu buildings, measuring 18″×12″ or 15½″×10⅞″[6], the bricks of Muslim monuments are proverbially small, light and thin. The non-availability of stone determined the employment of bricks universally made from the alluvial soil of the deltaic regions of Bengal. In the words of Marshall, "...the style of building is peculiar—for two reasons; firstly, as stones were rare, bricks were used and the mural ornaments which the mason would ordinarily have cut out of stone facings were imitated in the softer materials of bricks and tiles, often with great skill".[7]

Cole observes, "The brick and terracotta buildings of Bengal, of which the Gaur and Panduah mosques are singularly good examples, possess an importance for the whole

of India".[8] This peculiarly local character which I have referred to is conspicuous by the nature of the building materials, which is itself a necessary corollary of the geographical nature of Deltaic Bengal : stone is rarity, and if used it must be transported great distances over different terrain; wood is irregular, unreliable and of short life in this climate of high humidity—the early Muslim builders in the sub-continent certainly knew well the value of wood as a structural component in building, as the tombs and mosques of the desert regions of Multan, Ucch and Sindh testify; but here its employment can have been no more lasting than in the scaffolding of buildings.[9] Bengal, however, has a great richness of alluvial deposits which, when burnt, make excellent bricks, small, thin and very strong—their use is, indeed, not confined to Muslim building, but in the absence of pre-Muslim temple examples we may at least suspect that here the Muslims were the pioneers in brick-work techniques later imitated by the Hindu builders.

Gertrude Bell regards the primitive Mosques of Madina, Basra, Kufa and Fustat as approximating to the primitive Arab unadorned architecture of sun-dried bricks and palm trunks. The tradition of brick building is, therefore, as old as Islam and therefore, these are flexible materials. The Mesopotamian type of brick work, as stated by Creswell, is to be found in the Umayyad monument of Qasr al-Hair, dated A. D. 728-29. The Abbasid architecture owes its elegance and perfection to the ancient Persian tradition of brick building with is concomitant ornamental styles, as exemplified by the Mosques at Baghdad, Raqqa, Ukhaidir, Samarra, Abu Dulaf and Ibn Tulun. The brick building tradition rooted in the mud plains of Mesopotamia extends eastwards through Persia and across the Oxus to Samarqand, the appeal of which lay in its lighter shapes under the mantle of exquisite ornamentation of glazed tiles and mosaics, sumptuous interiors of stucco, carved and painted panelling, coloured glass, and similar features of a richly decorative Oriental art.[11] Pope has rightly pointed out that Persia has made four major contributions to the history of architecture : the development of the pointed arch, the mastery of vault building on a great scale, the perfection of domical structure, and the elaboration of the various styles of surface enrichment. These striking features of Persian Islamic architecture also exerted predominant influence on pre-Mughal Bengal architecture, though immediate links are to be established. The universal employment of bricks made the perfection and elaboration of these features possible. Raw and fired bricks formed the most instructive and flexible building materials in Persian Islamic architecture from the 8th to the 17th century A.D., as demonstrated by the finest monuments of Damghan, Nayin, Isfahan, Kirman, Varamin, Tabriz, Mashhad, Bukhara, Harat, Ghazni, Yazd, Nayriz, Qazvin, Shiraz, etc. The earliest known example of Indo-Muslim architecture is the Mosque excavated at Banbhore, dated A.D. 727-8, which is built of brick like the later mosque of Mansura-Brahmanabad.[13] The tradition of brick building in Indo-Pak sub-continent went unabated, as exemplified by the outstanding monuments of Multan, particularly the Tomb of Rukn-i-Alam, dated A.D. 1320-24, and even earlier but obliterated Ghaznavid structures of Lahore. Marshall maintains that the tradition of brick and glazed

tiles observed in Multan monuments was evidently Persian.[14] The finest brick monuments are undoubtedly the Madrasah of Mahmud Gawan at Bidar, dated A.D. 1472 and the Dholka buildings of the 15th century A.D. In the words of Brown, "Both the tomb (of Darya Khan in Ahmadabad) and the mosque (of Alif Khan at Dholka), although situated in places a considerable distance apart, are evidently not only contemporaneous, but also the work of the same hand, the mosque bearing the date of 1453. Instead of being built of stone, as are all the other monuments in Gujarat, they are composed entirely of bricks and in view of this method of construction, no beams or pillars figure in their design, their place being taken by arches and solid brick piers. From the character of the architecture and the structural process employed, it seems fairly evident that these two buildings are examples of a foreign style, which at this time found its way into the country of Gujarat."[15] Brown's reference to foreign style could only mean Persian, for closer commercial relations were then established between Southern Persia and the Gujarat.

It may, therefore, be asserted that the tradition of brick building in Bengal was a mere continuation of the process of brick and terracotta architecture of Persia, which penetrated Bengal through Gujarat, the Deccan and other brick building channels. The availability of alluvial soil in plenty and the comparative scarcity of stone made brick an inevitable building material for the Bengali architects. Specimens of Bengal ornamental art are to be seen in the various Museums in Calcutta, London and Edinburgh.

Important though the brick work is, its use is not, however, exclusive. Stone is, as has been repeatedly shown, an important constructional and decorative medium; though frequently it appears as ashlar over a skeleton of the traditional brickwork. The casing stones of black basalt, were sometimes procured locally, or were quarried in and transported from the Rajmahal hills. Nevertheless, the many examples of building in both media surely do not allow the facile generalization offered by Dani that Bengali mosques represent also the "brick and stone-style".[16] According to him, it was not an innovation in Muslim Bengal for it was followed widely in all regions of the sub-continent more or less, the earliest example being the Qutb Minar at Delhi dated 12th century A.D. It is, however, true that brick stupas of Asoka were encased with stones, yet the brick towers of the Buwayhid and Saljuq period have stone foundations. Like those in Bengal monuments of pre-Mughal times, stones were used for permanence and stability of the buildings. In Bengal stones were employed as string-courses and for casing with a view to protect the monuments from destruction by atmospheric humidity. Dani doubts the employment of such method in pre-Muslim times, though many ruined structures are still to be seen in Paharpur, Mainamati and Mahasthan.[16]

The stone used in pre-Mughal Bengal monuments is proverbially fine grained black basalt (Pls. XVI, XLIb, XLIIb). In the words of Wadia, "The basalt is coloured, porphyritic and amygdaloidal rock, commonly fine grainedin texture."[17] Francklin reports in his *Journal* that "black marble" was used in the buildings of Gaud but on enquiry from Buchanan Hamilton rectifies it as hornblende, which the natives call

"*Sung Moosa*".[18] In the words of Buchanan, "the rougher parts are granite, the more polished are indurated potstone impregnated with hornblende."[19] The black basalt or hornblende used universally in the monuments of pre-Mughal Bengal are of two types : (i) freshly quarried from Rajmahal hills and transported through the river to the sites, like Gaud and Hazrat Pandua; (ii) employment of already utilised building materials, obtained from dilapidated monuments of pre-Muslim Bengal.

Francklin observes that black basalts must have been procured at a boundless expense from the Rajmahal hills. Fanny Parke obtained a specimen of carving in "casowtee stone" (touch stone) and states that "in boring it for some water in the factory, a portion which appeared to consist of gold and silver, incorporated with the stone, fell out. The Casowtee stone is esteemed very valuable : its colour is black."[20] Of the innumerable black basalts used in the monuments of pre-Mughal Bengal, particularly at Gaud and Hazrat Pandua, the most interesting are the specimens bearing no trace of iconography. The fundamental difference between Muslim stone carving and the Hindu art of chiselling is that while the former is based on low and sophisticated carvings, as observed in the *mihrabs* of the zenana gallery of the Adina Masjid (Pl. VIII) at Hazrat Pandua, eastern facade of the Chhoto Sona Masjid (Frontispiece) at Gaud, the latter is proverbially and evidently an art of high relief. Secondly, the characteristically Islamic form of carving is known as arabesque, whereas Hindu workmanship is demonstrated by lotus, bell and chain, and other motifs. The Victoria and Albert Museum, London, has in its collection a large number of carved bricks, glazed tiles and architectural stone fragments from the ancient sites of Bengal. Three pieces of stonework arranged to form a small pointed arch of *mihrab* and carved in low relief with conventional floral patterns, collected and presented by Reginald Porch, are undoubtedly brought from the dismantled factories of Guamalti, Gaud. It is evident that these materials once formed the Mosque of Firuz Shah II which stood near the Indigo factory. The Indian Museum, Calcutta, as well as the *Bangiya Sahitya Parishad* Museum, Calcutta, acquired a large number of architectural objects from the ancient sites of Bengal, particularly, Gaud, Hazrat Pandua, Bagerhat, Hughli, Rajshahi, Dinajpur and elsewhere.

Besides freshly quarried basalts, a large quantity of locally available building materials was employed by the architects of Gaud, Hazrat Pandua and elsewhere. Ravenshaw's unwarranted observation that "Though it (Hazrat Pandua) cannot boast of such antiquity as Gaud, its remains afford stronger evidence than those of the latter city of its having been constructed mainly from the materials of Hindoo buildings",[21] has been brushed aside by Westmacott, who thinks that Hazrat Pandua is older than Gaud. One of the strongest advocates of the Indianized form of Muslim structures is Havell, who is too intolerant to allow any credit to the Muslim builders for the use of radiating arches, domes, minarets, delicate relief works. He maintains that the central *mihrab* of the Adina Masjid (Pl. III) at Hazrat Pandua is so obviously Hindu in design as hardly to require comments. While Havell writes that "The image of *Vishnu* or *Suyra* has trefoil arched canopy, symbolizing the aura"[22] of the god, of exactly the same type as the outer arch of the *mihrab*, Beglar says that the Muslims delighted in "placing

the sanctum of his orthodox cult (in this case the main prayer niche) on the spot, where hated infidel had his sanctum".[9] Saraswati is even more emphatic on his point when he contends, "An examination of the stones used in the construction of the Adina Masjid (one of them bearing a Sanscrit inscription, recording merely a name of *Indranath*, in the character of the 9th century A.D.) and those lying about in heaps all round, reveals the fact, which no careful observer can deny that most of them came from temples that once stood in the vicinity".[23] Ilahi Bakhsh, Creighton, Ravenshaw, Buchanan-Hamilton, Westmacott, Beglar, Cunningham, King, and a host of other historians and archaelogists bear glowing testimony to the utilization of non-muslim materials (Fig. 3b & Pl. V), but none of them ventured to say that existing temples were dismantled and materials provided for the construction of magnificent monuments in Gaud and Hazrat Pandua.

Creighton drew the sketches of a few Hindu sculptures which were evidently used in the Chhoto Sona Masjid at Gaud. These are the image of *Sivani*, the consort of *Siva*, *Varahaavatara* or *Vishnu* in the form of a Boar, *Brahmani*, consort of *Brahma*. In the British Museum there are a few images of Hindu and Buddhist character, such as the *Brahmani*, sketched by Creighton, and the seated Buddha figure (Pls. XLI-XLII). The Muslim builders out of sheer expediency felt no scruple to use these fragments in their mosques by concealing the carved sides into the wall and utilizing the flat reverse side of these black basalts for arabesque design in shallow carvings. Piecemeal utilization of Hindu sculptures were also to be seen in the earlier monuments, such as, the Mosque and Tomb of Zafar Khan at Tribeni, the Mosque at Chhoto Pandua, the Adina Masjid at Hazrat Pandua, etc. The British Museum and the Victoria and Albert Museum, both in London, the Indian Museum and the *Bangiya Sahitya Parishad* Museum, both at Calcutta, Varendra Research Society Museum, Rajshahi, provide large specimens of carved stones and architectural fragments used in the monuments of pre-Mughal Bengal. Ravenshaw photographed a circular stone pedestal and a gargoyle, which is now in the Indian Museum, Calcutta. Used obviously as the gargoyle in the Adina Masjid, it "consists of a modification of an elephant's head with the eyes, horns and ears of a *sardula* (elephant)."[6] Cunningham found in the pulpit of the Adina Masjid "a line of Hindu sculpture of very fine bold execution."[27] Innumerable Hindu lintels, pillars, door-jambs, bases, capitals, friezes, fragments of stone carvings, dadoes, etc., have been utilized in such a makeshift style as to render 'improvisation' well-nigh impossible. In many cases as observed in the Quwwat al-Islam at Delhi and the Arhai-din-ka-Jhopra Mosque at Ajmer, pillars were inverted, joining the base with capitals, suiting neither pattern nor size. Still there is no denying the fact that Hindu materials were utilized, yet it would be far-fetched to say that existing Hindu temples were dismantled and converted by improvisation into mosques' as observed in the early phase of Muslim architecture in Indo-Pak sub-continent. The ritual needs and structural properties of the Hindus and the Muslims are so diametrically opposite as to deter any compromise and, therefore, the early Muslim conquerors of Bengal said their prayer in mosques built out of the fragments of Hindu materials

in the same way as their predecessors did at Delhi, Ajmer, Patan, Jaunpur, Dhar and Mandu, and elsewhere. In the event of any complete picture of pre-Muslim Hindu art as practised in Gaud and Hazrat Pandua, it is an exaggeration to hold the view after Saraswati that "indeed, every structure of this royal city (Hazrat Pandua) discloses Hindu materials in its composition, thus, disclosing that no earlier monument was spared".[24]

The pre-Mughal style of Indo-Muslim building art is not only distinctive among the provincial schools, but also highly aesthetic in nature, even though many of the monuments are mere travesties of their former grandeur. The specific contributions of the Bengal school of which mosques are the most representative examples, appear in the reconciliation of traditional muslim features with indigenous craftsmanship of a peculiarly local character to a much greater extent than in Gujarat, for example, where the Muslim builder has so often been subservient to the Hindu or Jain mason, or say, in Kashmir where the local wooden styles are so distinctive as to obscure religious characteristics in alla rchitecture. As observed by Fergusson, "The country is practically without stone, or any suitable material for forming either pillars or beams. Having nothing but brick, it was almost of necessity that they employed arches everywhere, and in every building that had any pretensions to permanency".[25] Nowhere else in Indo-Pak sub-continent had the pointed arch been used so extensively and persistently than in Bengal, where not only the readily available alluvial soil for manufacturing bricks but also the deep-seated tradition of arcuate in place of trabeate building from Persia and Central Asia exerted a preponderating influence on the formation of the typical style of Muslim Bengal architecture. However, Havell, is of opinion that "Even the pointed arch only acquired from India the religious significance which eventually led the Saracenic builders to adopt it as their own, through the contact of the Arabs with the Buddhists of Western Asia".[22] A. U. Pope seems to have carried the thesis further when he says Islam adopted pointed arch from India, while casting doubt that the decorative rock-cut arch observed in the Buddhist caves at Nasik, Bhaja and Karli is structurally not satisfying. Pointed arch as a unit of construction was never used by the Hindu or Buddhist architects before the advent of Islam.[26] Pope, however, mentions that Creswell laid stress on Butler's contention that earliest example of the two centred variety of true pointed arch appeared at the Qasr ibn Wardan in Syria, dated A. D. 561-64. Pointed arch was also used in the Great Mosque of Damascus, the Qusayr 'Amra, Hammam as-Sarakh, Qasr al-Hair, Mshatta, Qasr at Tuba, Raqqa, Ukhaidir, Ramla, all dated from the 8th century A.D.[12] The elliptical arch of the Sasanian building as observed in the Taq-i-Kisra was transformed into a pointed arch in the Masjid-i-Jami' at Nayin, dated A.D. 960. Even in the 9th century A.D. pointed arch appeared in the Nilometer on the island of Roda and in the Mosque of Ibn Tulun from where it migrated to Sicily, particularly in the Bridge of Admiral Don Giorgio of Antioch in Palermo.[12] The Normans carried the idea of pointed arch from Sicily to France and England and it became the unit of construction in Gothic architecture. Pointed arch of decidedly Persian type penetrated Indo-Muslim architecture, as demon-

strated by the arched screen of the Quwwat al-Islam Mosque at Delhi and that of the Arhai-din-ka-Jhopra at Ajmer, dated from the 12th century A.D. Pointed arch was also used in the earliest Muslim monuments of Bengal, namely, the Mosque of Zafar Khan at Tribeni, the Mosque at Chhoto Pandua and the Adina Masjid at Hazrat Pandua. Therefore, it is hardly correct to say after Havell that pointed arch penetrated from India to Persia. While deriving the origin of pointed arch from bamboo construction, Dani observes, "Havell likes to attribute the pointed arch, the *mihrab* and the engrailing at the arches to Bengal, but these, except the last, are so common in the Muslim world that it is difficult to be dogmatic on the point".[10]

The interesting monuments of pre-Mughal Bengal demonstrate multifoil arches whose ancestry has been traced by Pope to Indian prototypes, especially the Buddhist niches at Gandhara, Nalanda and Bamiyan. He writes, "Although the cusped arch was probably originally of Indian inspiration, it was early developed in Central Asia at Mashad-i-Misrian (tenth century) . . . ."[26] The traditions of multifoil arches in Muslim buildings are to be seen in the Mosque of Cordova, dated from the period of Hakam II (A.D. 916-76), particularly in the vestibule of the *mihrab* and also in the squinches of scalloped (multifoil) shape in the Mosque of Qairawan dated from the 9th century A. D. Though multifoil arch was used as unit of construction like the pointed true arch, in various Islamic monuments from very early periods, yet Rivoira, following Havell, says, "The multifoil arch has its origin in the trefoil arch first used in Gandhara as an ornamental form for the walls and domes of 'viharas', i. e. monasteries or houses of idols, and 'stupas' or shrines to preserve relics or the memory of sacred events".[28] He cites the example of the Temple of Martland.[28] It must be very clearly understood that pointed and trefoil arches used in pre-Muslim buildings in India had inherent religious significance and had a peculiar symbolism of their own. On the contrary, the Muslim builders adopted these architectural contrivances as structurally expedient and aesthetically satisfying. Trefoil arch is, of course, found in the central *mihrab* of the Arhai-din-ka-Jhopra Mosque at Ajmer, central *mihrab* and below the canopied pulpit of the Adina Masjid as well as in the Mosque at Chhoto Pandua, Hughli, also underneath the pulpit. These are, however corbelled, in the same way as the many examples of multifoil arches in the *mihrab* of the Adina Masjid. Yet, they are not like the decorative rock-cut arches occasionally found in the Buddhist caves. Pope contends, "the portal with cusped arches, with large disks in the spandrels in the dome of Safed Bulan (twelfth century) is repeated with surprising fidelity in the mausoleum of 'Ali Shahid Pir-ki-Masjid at Bijapur (sixteenth century)".[26] Even earlier examples of engrailed or cusped arch is to be seen in the screen of the Arhai-din-ka-Jhopra Mosque at Ajmer and the Tomb of Iletmish in the Qutb Delhi, dated from the 13th century A. D. In the words of Percy Brown, ". . . there are the smaller side arches (in the screen of the Ajmer Mosque), four of which are of the multifoil pointed variety, a type rare in Indian architecture but probably derived from Arab sources, as seen in the eighth century mosque at Ukaidir in Iraq".[15] In pre-Mughal Bengal multifoil arch assumed distinctive characteristics in the central *mihrab* of the

Mosque of Zafar Khan at Tribeni, in the *mihrab* of the Mosque of Chhoto Pandua, in the pulpit and the *mihrab* of the zenana gallery of the Adina Masjid (Pl. IX) at Hazrat Pandua, in the Darasbari Mosque and the Chhoto Sona Masjid, both at Gaud. (Pls. XXXVII, Frontispiece) The Adina Masjid never employed actual Hindu niches with cusped arches for its *mihrabs*, as stated by D. McCutchion, but merely fragments.

The immense flexibility of brick, made it possible the universal use of the arch, vault and dome particularly in the Deltaic region of Bengal. The Adina Masjid at Hazrat Pandua (Pl. I) provides a unique example of a tunnel and ribbed vault, which is the earliest of its kind in Bengal. In point of fact there is only one earlier specimen in the Langar-ki-Masjid at Gulbarga. The Jami' Masjid of Gulbarga built by Rafi' of Qazvin provides another interesting example of tunnel vaulted corridors, besides an enclosed type of structure. Vaulted architecture is integrally connected with the history of Muslim building art from very early phase. In the words of Scarbe, "From the tenth century onwards in Mesopotamia and Spain they (the Muslims) were using the rib vault two hundred years before the builders of the West".[28] The tradition of vaulted architecture, though an experiment in Indo-Pak sub-continent, came directly from the highly developed building art of the Persians. A detailed discussion on the vaulting system has been attempted in connection with the Adina Masjid at Hazrat Pandua, where attempts have been made to show the influence of Persian vaulted architecture on pre-Mughal Bengal.

Of the characteristic features of the pre-Mughal buildings in Bengal the employment of domes, proverbially hemispherical in shape is universal. While Havell derives the origin of domical construction from Indian prototypes, Pope after a little hesitation writes, "But domes on a large scale were known in Mesopotamia and Assyria a full millennium before Buddhism, and in Persia there was a practical need and perhaps also further instructive antecedents in the great tent structures which were developed by the nomads of Central Asia".[26] It is true that Buddhist votive stones and the solid domed canopy over the standing Buddha figures in the Ajanta Caves no doubt betray earliest forms of domical construction. Nevertheless, the Assyrian bas-reliefs also demonstrate domical buildings of some architectural pretentions. It is, therefore, not understood how the Muslim builders of India who migrated from Mesopotamia, Persia and Central Asia, copied from Indian antecedents when innumerable example of domical structures were observed by them before their advent into the Indo-Pak sub-continent. Secondly, the Indian prototypes are decorative in design without any structural ingenuity as they are hardly hollow. Even those domes which are hollow in shape are built on the principle of corbelling as observed in the domes of the Quwwat-al-Islam Mosque at Delhi. The accepted Hindu method of domical construction in which successive layers of stone are placed horizontally and finally capped by single block stands in sharp contrast to the system of true dome. Universally employed by the Muslim builders throughout the Muslim world, the dome, whether 'Arab', 'Pathan' or 'Tartar', is constructed on the wholly different principle of radiating arches, "by which the pressures are transmitted in curving and oblique lines, . . .and

permits a building of relatively light and thin-shelled domes of vast size as well as great and varied beauty of contour".[26] Havell admits that "The Hindu horizontal system of dome-building could never produce a hemspherical shape internally".[22] One of the earliest and finest examples of Islamic domes is to be found in the Dome of the Rock at Jerusalem, dated 7th century A.D. In Persia the most elegant domes are to be seen in the 11th and 12th century Saljuq monuments, particularly, the Masjid-i-Jami' at Isfahan, though earlier example of domed building is to found in the Tomb of Isma'il the Samanid at Bukhara dated 10th century A. D. One of the major styles of pre-Mughal architecture is based on single domed square type of mosques, as exemplified by the Chamkatti and the Lattan Mosques (Pls. XVII,XIX), both at Gaud. The contour of the dome, which is hemispherical, anticipates that of the Tomb of Ghiyasuddin Tughlaq at Delhi. The Bengal domes are conspicuous by the absence of any drum.

The transition from square base to the circle of the dome is attained by either squinch arch or pendentive. In the words of Pope, "It is to the architects of Persia that we owe the solution that was subsequently adopted in all the true domes built in India. This solution consists in interposing a third zone between the square chamber below and the round dome above, called the zone of transition. This zone by means of little arches or bridges, called squinches, thrown across the square chamber below, transforms it at a higher level into an octagon, and then where necessary similarly reduces the angles of the octagon making it sixteen-sided, which is in form so near to that of a circle that the slight residual angularities are easily masked.[26] This solution first appears in the Sasanian palace of Sarvistan in the middle of the fourth century, and was from then on richly developed and widely disseminated through Armenia, Syria, Byzantium, reaching Europe as well as Central Asia. One of the earliest known examples of the squinch arch in Islamic architecture is to be seen in the Great Mosque of Damascus, dated 8th century A. D., and in Indo-Muslim architecture in the Tomb of Iletmish, dated 13th century A.D. The intermediary examples of squinch arches are to be seen in the beautiful mosques of Persia, particularly in the Duvazdah Imam at Yazd (A.D. 1037), the Masjid-i-Jami' at Isfahan (A.D. 1080-88), and the Mosque at Qazvin (A.D. 1113), at Gulpaigan (A.D. 1104-1118) and of Ardistan (A.D. 1155). Probably the most notable of the earliest squinches is to be found in the Mosque at Kilwa in the Zanzibar coast, presumably built in the 9th century A.D., which is the prototype of that of Ghiyasuddin Tughlaq's Tomb at Delhi (14th century A.D.) and also of the Jami' Masjid at Mandu (15th century A.D.).[26] Dani mentions that squinch arch first appeared in Gumti Gate (16th century A.D.) at Gaud while referring to it as a method of transition from octagon to the circle of the dome in the Eklakhi Tomb (Fig. 13) at Hazrat Pandua (15th century A.D.). It is, therefore, evident that, in the words of Creswell, "The earliest existing squinches in Islam, a feature borrowed from Sasanian Persia, date from this period, e.g. Ukhaidir, 778; Samarra, 836; Great Mosque of Susa, 850; Great Mosque of Qairawan, as altered in 862-3; and the Great Mosque of Tunis, 864".[10]

The principle of spherical pendenive was adopted side by side with squinches for marking the transition of the dome. The Umayyad architecture which is greatly indebted to Byzantine building art employed pendentives, as obseived in the Qusayı 'Amra and in the Hammam as-Sarakh, both dated from the 8th century A. D. Stalactite pendentives became the most accepted form of domical construction in the 11th and the 12th centuries in Persia, Iraq, Syria and Spain. The Indian examples of stalactite pendentives are to be seen in the form of a solid corner bracket corbelled out of the walls and occasionally carved with small niches, as in the Tomb of Darya Khan (A.D. 1453) at Ahmadabad, Sher Shah's Mosque at Delhi (A.D. 1540-45), almost all the 14th, 15th and early 16th century monuments of Bengal (Pls. XI, XXXII). The use of corbelled pendentives was universal in pre-Mughal architecture of Bengal as demonstrated by the Mosque of Zafar Khan at Tribeni; the Mosque of Chhoto Pandua, the Adina Masjid at Hazrat Pandua, the Lattan Masjid, the Chhoto Sona Masjid and the Bara Sona Masjid etc.[16]

The *liwan* screen arch in front of the central nave embellished with blind niches in the Adina Masjid (Fig. 3c) is a novelty undoubtedly inspired by the beautiful arched facade of Persian monuments, such as those at Takht-i-Sulaiman, Linjan, Astarjan, and Mashhad. Immediate Indian examples of arched screen are to be seen at Delhi, Ajmer, Badaun, Cambay, Jaunpur and elsewhere. The use of a ribbed and pointed vault of brick in the Adina Masjid with a prominent *liwan* arch is certainly an innovation as far as this region is concerned. Another striking feature of the pre-Mughal Bengal architecture is that in no other part of India did climatic conditions play a role more determining of the actual architectonic forms of the region. The nature of the soil and the subsequent use of brick has already been mentioned; but besides this the form itelf influenced, the mosque tending to develop more and more of the enclosed type of structure, such as the Mosque at Molla Simla, Hughli; the Mosque of Binat Bibi, Dacca; the Mosque at Masjidbari, Bakerganj; the Chamkatti Masjid (Pl. XVII), the Lattan Masjid (Pl. XIX), also at Gaud, the Mosque of Baba Adam at Rampal. The primitive mosques of Islam assumed the form of a square enclosure as observed at Madina, Kufa, Wasit and Harran. The Umayyad and the Abbasid Mosques also represent the traditional square plan, though oblong type was more universally accepted form. The early Persian and Central Asian Mosques at Bukhara Barsian, Kaj, Dashti, Eziran, Ardabil maintain square domed prayer chamber. The Indian prototype of this is to be seen in the original *Jamat 'at Khana* at the *Dargha* of Nizam-ud-Din Aulia at Delhi, dated 14th century A.D.

The earliest known example of an enclosed type of mosque without any courtyard was built by Amr ibn al-'As at Fustat in A.H. 21/A.D. 641-2. In the words of Pope, "As in all architecture regional habits and needs exercise a certain control. Adharbayjan, with its cold winters prefers the closed mosque, while the south more favoured by nature, enjoys the mores pacious courts".[11] Similarly climatic conditions played a vital rôle in shaping architectural style in Bengal. Some of the earliest known examples of Persian square domed building are the Domed Mausoleum, namely, the

Qubbat as Sulaibiya in Samarra, dated A.D. 861, the Mausoleum of Arsalan at Sang-bast, dated A.D. 997, the Mausoleum of Isma'il the Samanid at Bukhara, A.D. 907, the Dome of the Shrine of Duvazdah Imam, Yazd, dated A D. 1037, the Gunbad-i-Alaviyah at Hamadan, 2nd half of the 12th century A.D., the Masjid-i-Haydaria at Qazvin, the first half of the 12th century A.D.[19] The fourteenth century Il-Khanid mosques at Marand, Ardabil, Barsian, Kaj, Dashti, Eziran have all square domed chambers. The enclosed type of mosques is to be seen in the Kalan Masjid, the Khirki Masjid and the Gulbarga Masjid. The most interesting feature in the square domed type of Mosque is the introduction of a verandah which is certainly an innovation. Corridor or verandah which is copied from the verandah of a thatched Bengali *do-chala* or *chau-chala* hut of Bengal first appeared in the Gopalganj Mosque, dated A.D.1460.

The multi-domed oblong type of Mosques as exemplified by the Mosque of Zafar Khan at Tribeni, the Mosque of Baba Adam at Rampal, the Tantipara Mosque (Pl. XXV) at Gaud, the Mosque of Bagha (Pl. XXX), is another interesting variety of pre-Mughal architecture. Typological ancestry of this type is to be traced from the Persian multi-domed monuments, as observed in the Masjid-Jami' at Isfahan, dated from the 11th century A.D. Another example is to be sent at Ani in Armenia, dated between 1072 and 1110 A.D. As Schroeder writes, "Although tunnel vaults remained in general use, continuous domical vaults were first employed in Persia for roofing mosque arcades in Seljuq examples".[11] About the necessity of roofing with domes, Pope observes that the multiplication of little domes expressed a notion of infinity. The finest example of multi-domed mosque in Indo-Islamic architecture is to be observed in the Masjid at Kotla Firuz Shah at Delhi, built in the middle of the 14th century A.D. Other specimens of multi-domed mosques are the Kalan Masjid and the Khirki Masjid, both at Delhi, the Jami' Masjid at Cambay, the Jami' Masjid at Mandu. The earliest known examples of multi-domed oblong type of Mosque in Bengal, which were undoubtedly inspired by earlier prototypes, are to be seen in the Mosque of Zafar Khan at Tribeni and the Chhoto Pandua Mosque, both in Hughli, the Great Golden Mosque or Mosque of Qutb Shah (Fig. 26) at Hazrat Pandua, etc.

The most striking of all the characteristics of pre-Mughal Bengal architecture is the curvilinear cornice. As rightly remarked by Fergusson, "Besides elaborating a pointed arched brick style of their own, the Bengalis introduced a new form of roof, which has had a most important influence on both the Muhammadan and Hindu styles in more modern times".[25] This speciality of the Bengal school of architecture lies in the evolution of convex-roof ridges, resembling Bengali thatched huts, both *do-chala* and *chau-chala*. In the words of Havell, "These thatched cottages of Bengal have curved roofs with pointed eaves, built upon an elastic bamboo framework, which gives them rigidity and acts most effectively in throwing off the rain water".[30] Curvilinear roof, is therefore, the most recognised and thoroughly indigenous feature of Bengal architecture, whose origin may reasonable be traced to ordinary thatched cottages with drooping eves.

The most predominating influence of pre-Mughal architecture on the temples of Bengal is undoubtedly the curved cornice. Fergusson pleads, "...the Bengalis taking advant-

age of the elasticity of bambu universally employ in their dwellings a curvilinear form of roof which has become so familiar to their eyes that they consider it beautiful. It is so in fact when bambu and thatch are the materials employed, but when translated into stone or brick architecture, its taste is more questionable".[25] Though he is very sceptical about the result of the translation of the form, yet the pre-Mughal mosques with prominent curvilinear roofs as well as the *do-chala* and the *chau-chala* buildings built in Bengal are aesthetically pleasing and structurally expedient. The two-segmented roof type of building is to be seen in the Tomb of Fath Khan at Gaud, dated 17th century A.D. Here following the bamboo framework as put by Dani, "the eves are curved as before and the ridge is generally crowned with *Kalasa* finials in imitation of the knots found in the original roofs".[16] Other examples of the *do-chala* type are found in the gateway to the Mosque of Shah Muhammad at Egarasindhur, Mymensingh, dated A.D. 1680, and in the annexe to the north of the Mosque of Kartalab Khan at Dacca, A.D. 1700-1704. There is no denying the fact that Bengal curved roof exerted overwhelming influence on the temples of Bengal under Muslim dispensation as well as on the Mughal and Rajput architecture of the 17th and the 18th centuries. Bloch observes, "it is quite possible that the idea of the Panch-Ratna temple to some degree may have been suggested by the form of the Muhammadan rauza or tomb with its central dome and four corner minarets".[32] The finest example of brick and terracotta temple of Bengal is to be seen in the *nava-ratna* temple of Kantajee at Kantanagar in the district of Dinajpur, dated between 1704 and 1722.[33] M. M. Chakravarti mentions that an old *do-chala* roofed *jor-Bangla* temple of the time of Husain Shah, dated from the first quarter of the 16th century existed at Bhavanipur, Natore, which fell down in 1885 earthquake.[34] Of the surviving temples of Bengal the most interesting are those with a square curved roofed chambers surmounted by a tower in the centre alone or accompanied by 4, 8, 16, corner towers, making them simple *Panch-ratna* (five-jewelled), *Nava-ratna* (nine-jewelled), *Satera-ratna* (seventeen-jewelled). The most notable examples of these styles are the *Jor-Bangla* temple at Vishnupur, dated A.D. 1572-73, the *Jor-Bangla* temple at Pabna, dated from the 17th century A.D., the *Nava-ratna* temple of Kantanagar, and the *Satera-ratna* temple at Comilla, dated from the 18th century A.D. These are characterized by curved roof lines, and embellished with exquisite terracotta works.[31]

Like the *do-chala* type of roofing, *chau-chala* or four-segmented form is also universally accepted method in Bengal, as exemplified by the *Saith Gumbad* Mosque (Pl. XXIV) at Bagerhat, dated A.D. 1450, the Darasbari Masjid at Gaud, dated A.D. 1479 and the Chhoto Sona Masjid also at Gaud. As contended by Fergusson,..."after being elaborated into a feature of permanent architecture in Bengal, this curvilinear form found its way in the 17th century to Delhi, and in the 18th to Lahore, and all the intermediate buildings from, say, A.D. 1650 betray its presence to a greater or less extent".[25] Havell points out that after the conquest of Bengal by Akbar and final subjugation under Jahangir, Bengali craftsmen migrated to Delhi and introduced characteristic features of their building art to Mughal architecture. In his own words, 'From the structural point

of view the influences which account for the differences between Akbar's buildings and the Mogul buildings of the seventeenth century came mostly from Gaur and from Bijapur. The break-up of the great Bengal building centre towards the end of the sixteenth century sent many craftsmen of the school to the imperial Mogul court, whence they migrated later on into Rajputana. Their influence became apparent in the bent roof of the Golden Pavilion in the Agra palace, the bent cornice of the Moti Masjid at Delhi, and in the cusped Hindu arches which are characteristic of most of the later Mogul buildings".[22] The golden pavilion at Agra Fort, commonly known as "*Bangla-i-Darshan-i-Mubarak*" is exactly a replica of the *do-chala* hut, complete with knots in marble. In the 18th century similar structure was built in the Lahore Fort, also called *do-chala* building. Another striking example of *chau-chala* type of Mughal building is also to be seen in the Lahore Fort in the *Naulakha* built by Shah Jahan in A.D. 1640. As Dani puts it, "Here the main roof is flat but the parapets and the eves on three sides are curved in the typical Bengali fashion."[16] About the influence of indigenous Bengal architecture on Mughal building art, Abu'l Fazl rightly remarks that Agra contained buildings of masonry after the beautiful designs of Bengal and Gujarat, which masterly sculptors and cunning artists of form have fashioned as architectural models."[35]

Aurangzeb's puritanism drove the Bengali craftsmen along with others to take up services in the Rajput courts, and naturally indigeneous Bengali features penetrated into the local building art of Rajputana, as mentioned by Fergusson in connection with the Tomb of Raja Bakhtawar Singh at Alwar, erected about A. D. 1815.[22]

It is hardly surprising to note that the curved roof caught the fancy of Shah Jahan when he ruled over the Subah of Bengal for some time and on his assumption of the throne decided to introduce it into Mughal architecture as an elegant feature, having lost its original structural purpose. There is no gainsaying the fact that pre-Mughal buildings exerted a preponderating influence on the temples of Bengal, erected in the 17th and the 18th centuries, as demonstrated by pointed arch with its outside cusps, simulating towers, panelled carvings, rosettes and geometrical patterns or arabesque, curved battlements, etc.[34] Unmistakable influence of Bengal architecture is reflected in the Dimapur Palace in Assam, dated from the 16th century, particularly in the pointed arch, curved cornice, octagonal turrets, recalling "mosque fronts of Gaud and Pandua (Hazrat)."[32] In this connection it is to be recalled that Sultan Husain Shah invaded Assam in A.D. 1498 and extended his sphere by defeating its ruler.

Enough has already been said to refute the uncharitable criticism of Richards that "the architects of Muslim Bengal never grasped the spirit of Islamic art, their mosques are ill-proportioned, their decoration over elaborate ; the blend of the two cultures is, less successful than elsewhere".[36] In the field of decorative art the Bengali craftsmen made a distinct contribution. Though no attempt is made in pre-Mughal architecture to make construction subservient to decoration, as observed in the Tomb of Isma'il the Samanid at Bukhara, Bengali masons, artists, and craftsmen indulged in

the following forms of ornamental art; (1) terra-cotta or carved brick ornamentation; (2) glazed or encaustic tile decorations; (3) delicate stone carvings; and(4) calligraphy. In the words of Marshall, "It was only the independent Muhammadan kings, who, feeling that the lustre they shed was their own, adorned their capital at Gaur and Pandua with elaborate works of art and their buildings, notwithstanding the vandalism of later days, still commemorate the pomp of their fallen majesty".[37] The pre-Mughal buildings represent the essential continuity of the brick building tradition of Muslim architecture of Persia with its various concomitant results. Unlike the trabeate form of Jaunpur and Gujarat architecture, Bengal architecture is reminiscent of brick and terra-cotta building art as demonstrated in a limited case in the monuments of Punjab, Multan, Dholka (Alif Khan's Mosque). Borrowed both from extraneous and indigenous sources, terra-cotta or carved brick ornamentation was applied to adorn and protect the bare walls of the monuments as illustrated by the tympana of the Adina Masjid (Pls. X,XI) at Hazrat Pandua, the Tantipara (Pl. XXVI), the Darasbari (Pl. XXXVII), both at Gaud, and the Bagha Mosque (Pl. XXX) at Rajshahi. The fundamental difference between pre-Muslim and Muslim terra-cotta art is that while the former is mainly moulded and stamped with figures, the latter is delicately carved with floral and geometrical patterns with sharp chisel. The excavations at Paharpur, Mainamati and Mahasthan revealed a large number of terra-cotta plaques which. however, stand in sharp contrast with the carved brick designs of Bengali monuments, though the technique might have been revived. The predominant motifs of decoration are taken both from the repertoire of Hindu Muslim ornamental art. [30] The lotus, bell and chain, intertwining leaves and foliages are unmistakably Hindu in origin, obtained from the luxuriant jungle life of a terraqueous country like Bengal. The employment of arabesque and calligraphy in the finest monuments of Gaud and Hazrat Pandua are unmistakably Islamic in character. The Indian Museum and the *Bangiya Sahitya Parishad* Museum collected a large number of carved and moulded bricks from the ancient sites of Bengal, which bear glowing testimony to the variety of design and skilled craftsmanship. Other notable examples of carved brick ornamentations are to be seen in Pls. X,XVII, XVIII. In the words of Havell, "Though Persian encaustic tile-work shows foreign influence, or rather gives evidence of the mutual exchange of artistic ideas which is natural between two countries so closely connected in race, language, and religion as Indian and Persia, the beautiful terracotta and moulded brickwork is characteristic of Bengal, and must have been the work of local craftsmen."[22] Even these motifs are indigenous, as observed by Wheeler, "The close-set panelling which is a structural feature of his (the Bengali villager's) plaited grass huts is reflected in the panel-decoration of his mosque and mausolea".[38] Yet it cannot be denied that the tradition of carved brick penetrated from the Islamic countries into Bengal, parallel examples of which are to be seen in the earlier works in the Mosque of Samarra, in the mosque of Ibn Tulun at Cairo and the Tomb of Isma'il the Samanid at Bukhara.

The use of glazed tile in pre-Mughal monuments is unmistakably Persian in origin.

Probably introduced from China, as the word *'chini'* would betray, the glazed tiles were employed by the Egyptians in the temple of Sakkara and by the Babylonians in the Birs-i-Nimrud at Borsippa, near Babylon, and also by the ancient Perisans in the Palace of Susa.[39] There is hardly any Persian Islamic unadorned monument dated from a very early period. The excavations at Nishapur, Rayy, and elsewhere revealed a highly developed technique of ceramic art from the 9th century A.D. The earliest known examples of the use of glazed tiles are the Ghazni *minars*, dated from the 11th century A.D., and it is not very surprising that the Persian immigrants introduced lustre tiles in the Mosque of Qairwan in the 9th century A.D. The most striking feature of Persian architecure is the decorative use of coloured glazed tile-and "entourage of colour".[40] The sumptuous colour schemes of Persian architectural decoration as seen in Masjid-i-Jami' and Masjid-i-Shah, both at Isfahan, the *mihrab* of the Maidan Mosque in Kashan, dated A.D. 1223, now in the Staatliche Museum, Berlin, and the Blue Mosque of Tabriz, dated A.D. 1465 also appear in the Alhambra (A.D. 1232-1492) in Spain and the Lattan Masjid at Gaud (A.D. 1493-1519). (Pl. XXII)

As Brown rightly remarks, "Glazing was introduced into India from Persia by the Muslims".[14] The Muslims who brought to Persia from China the technique of glazing, transmitted it to India and it penetrated into the various regions, namely, Multan, Lahore, Delhi, Bidar, Gaud, Hazrat Pandua, Bagerhat, etc. The earliest notable examples of tile mosaics are to be seen in the Tomb of Bahal al-Huq, dated A.D. 1250, Tomb of Rukn-i-Alam, A.D. 1320, in which designs are in dark blue light blue and white, and are built up of small pieces of glazed earthenware cut into shapes and pieced together to form geometrical patterns. Other specimens of glazed tile are to be observed in the Tomb of Firuz Shah at Delhi, 1388 A.D., which is decorated with tile work in two blues, a clear yellow and pale green. In the fifteenth century A.D. Mandu was a flourishing centre of glazed eartherware like that of Gaud and Hazrat Pandua. The technique of polychrome tile as observed in the monuments of pre-Mughal Bengal is unmistakably Persian which percolated through earlier centres of glazed tile decoration in India, as noted above.[15]

The Chinese travellers of the 15th century A.D. bear glowing testimony to the decorative art of medieval Bengal in these words: "In the audience hall the pillars are plated with brass ornamented with figures of flowers, animals, carved and polished, and further, the Palace of the King is made of bricks and lime.[42] The profuse employment of a variegated colour tiles in pre-Mughal monuments is attested by the *Minar* at Chhoto Pandua, the earliest known example of its kind in Bengal.[43] It was also used in the Eklakhi Tomb at Hazrat Pandua, dated 15th century A.D. In the words of Codrington, "Its distinctive features are the heavy squat pillars of obvious Hindu origin (stone lintels), its use of the curvilinear bangla roof and of moulded and enamelled tile work in rather muddy green, blue, yellow, orange and white". (Pl. XVI) Glazed tiles were employed in the Rajbibi Masjid (Pl. XVIII), the *Firuza Minar*, the Tantipara Masjid (Pl. XXV), the Lattan Masjid (Pl. XIX), the Tomb of Husain Shah (disappeared) etc. *Firuza Minar* which owes its name to the turquoise glazed tiles used profusely in

this minaret in the same way as the *Lakka Chippi* or *Luka-Churi* Gate at Gaud owes its appellation to innumerable encaustic tiles. Creighton writes about the Tomb of Husain Shah in these words : "The gateway and the surrounding wall were cased with bricks, curiously carved, and beautifully glazed blue and white, in the manner of Dutch tiles in Europe."[44] The most significant monument of considerable decorative style in pre-Mughal Bengal is undoubtedly the Lattan Masjid, described by Creighton in glowing terms. He says, "This beautiful Edifice appears to have obtained the epithet of painted (or *chini*) from its walls being cased, both inside and out, with glazed bricks, wrought in different patterns and coloured blue, green and white".[44] Many European explorers described this "Painted Mosque" as representing glittering tiles. In the Victoria and Albert Museum, London, (Pl. XXIIb) a large quantity of the coloured tiles has been preserved and it is presumed, as attested by Vincent Smith that they were mostly collected from the mosque of Gaud, preferably the Lattan Masjid. Some of these tiles measure 12 inches by 11¾ inches with pale yellow, blue lotus flower on orange ground, pendant form or springing out of purple arcades. They are very graceful and harmonious with well-balanced ornament and well-toned colouring. Glazed tiles were also skilfully used to adorn the bare walls of the *Saith Gumbad* Mosque (Pl. XXIV) and the Tomb of Khan Jahan Ali at Bagerhat, as attested by innumerable encaustic large pieces of tiles in the Indian Museum, Calcutta (Pl. XXIIa).[45]

Stone carver's art in Bengal is thought to be basically indigenous in style, though the Muslim artists revelled only in low relief unlike their great native counterparts.The surviving monuments of pre-Mughal Bengal are also adorned, like the exquisite terracotta and glazed tiles, with large slabs of black basalt, carved neatly with various ornamental motifs. Dani considers that the art of stone carving has been derived from the hieratic art, traces of which still survive in the pre-Muslim sites in Bengal. Though the impact of local art cannot be ignored, it may be pointed out that the Hindu decorative art is primarily based on high relief: the Muslim art takes its recourse to low relief works, existing elsewhere in the Indo-Pak sub-continent. Muslim art is aniconic, whereas Hindu or Buddhist art is hieratic and, therefore, iconographical.[4] A comparison between the sculptured stone lintels, cornices, door jambs, medallions, figures, pillars, friezes, etc., which have been utilized in the construction of Muslim monuments with the distinctive stone carvings encasing the brick core of the Adina Masjid (Pls. III, IX), Goaldi Mosque, Sonargaon, Dacca, the Chhoto Sona Masjid (Frontispiece) and later on the Kusumbha Masjid (Pl. XXXI), will make the point clear. The interlocking design and the frieze with Arabic lettering, the shallow decorative merlons above the central *mihrab*, the shallow carvings of the bell and hanging chain in the niche of the central *mihrab*, the diaper and geometrical designs and inscriptions in the *mihrabs* of the zenana gallery of the Adina Masjid (Pl. IX) are unmistakably works of Muslim craftsmen. The proverbial adaptibility of the artists and carvers working under Muslim overseers is demonstrated in the trefoil arch of the central *mihrab* (Pl. III). To quote Brown : "It is true the *suraj mukh* or 'sun face' at the apex and the *hansa* or sacred goose at the spring of the arch have been converted into patterns of conventional and therefore innocuous foliage..."[15]

The delicate stone cutter's art in Bengal reached its climax in the Small Golden Mosque at Gaud (Pls. XXXVIII, Frontispiece). The process of low relief was carried diligently through the Gunmant Mosque, though interesting examples after the Adina Masjid are lacking. Victoria and Albert Museum, London, has in its reserve collection carved stone pieces, multifoil arched slabs, obtained from the Ruined Mosque at Guamalti, dated A.H. 894/A.D. 1489, which attest finest technique of stone carvings. During the Husain Shahi period the stone cutter's art was thoroughly practised and perfected, as walls of gates and mosques were adorned with stone, either quarried from Rajmahal hills or obtained from some existing buildings. The Small Golden Mosque provides the last efflorescence of the stone cutter's art in Bengal. The most predominant ornamental motif is a niche with cusped arch carried on conventionalised pillars. As related by Dani, "From the apex of the arch hangs down a chain, and also alongside it strings of bead ending in a curved billet. From the chain is suspended a bell, hardly recognizable. Above the billets is a floral design and at the four corners a rosette. The spandrels of the arch have a tree motif, intertwining a rosette within its branches. The triforium of the arch consists of a flower, above which rises tiers of moulding. The entire composition is bordered within a frame decorated with scroll work of inferior workmanship. The top side has further carved hands, crowned with blind merlons on either side of the centrally placed *Kalasa* motif".[16]

The central *mihrab* of the Small Golden Mosque, (Pl. XL) which is *tour de force* of stone cutter's art, is now lying in the Royal Scottish Museum, Edinburgh. It is described in the Appendix II. The British Museum, London, has in its collection two sculptured pieces from Bengal, namely, the seated Buddha figure (Pl. XLIIa) and the image of Brahmani (Pl. XLIa). Both these images have on their obverse (Pls. XLIb, XLIIb) exquisitely carved diaper work of unmistakable Muslim workmanship. The Indian Museum, Calcutta, has a stone slab carved on the one side with the image of Durga, destroying *Mahisha* or Buffalow-demon, and on the reverse arabesque. The panel consisting of a scalloped arch with a lotus rosette on each of its sides, surrounded by richly foliated devices, is undoubtedly a Muslim work.[4]

The stone cutter's art, though basically Indian in spirit, appeared quite early in Indo-Muslim monuments, notably in the screen arches of the Quwwat al-Islam Mosque at Delhi and Arhai-din-ka Jhopra Mosque at Ajmer, in the Qutb *Minar*, in the Tomb of Iletmish, in the Alai Darwaza. In all these striking examples, delicate low relief was used to embellish the structure with arabesque, calligraphy and floral motifs. The finest expression of decorative art in stone carving probably took place in the Gujarat monuments particularly in the Jami'Masjid at Ahmadabad, the Jami' Masjid at Champanir, Rani-ka-Hujra or Tomb of the Queen at Ahmadabad, Mosque of Sidi Sayyid, the so-called Nagina Masjid (Tomb) dated from the 15th and the 16th centuries A.D. It would be quite in the fitness of things if the typological ancestry of Bengal stone carvings is traced from the stone cutter's art of Gujarat. Even certain common motifs do appear as pointed out by Brown, "Among the many terra-cotta patterns on its walls is one representing an unusual foliage subject which, in intent,

is similar to one produced as far away as Ahmadabad in the Sidi Sayyid Mosque [palm and parasite appears in the Darasbari Mosque at Gaud (Pl. XXXVII)] and built about the same time".[15] The art of stone carvings attained a further dimension and consequent over-ripeness in the Mosque of Kusumbha, dated A.D. 1558 (Pl. XXXI).

Another characteristic feature of ornamental art in pre-Mughal Bengal is the application of gilding to domes and other parts of the structure as exemplified by the Small Golden and the Great Golden mosques at Gaud. Creighton reports that his servant found a large quantity of gilding in the Small Golden Mosque, which he subsequently verified.[44] Speaking of Great Golden Mosque, 'Abid 'Ali says : "The domes were actually gilded and so much of the surface was ornamented in the way that under the rays of the sun or moon it looked like a mosque built entirely of gold, hence the name Sona Masjid."[46] Cunningham saw gilding in the Small Golden Mosque as late as 1871. Following the tradition of gilded domes, the Mosque of Qutb Shah at Hazrat Pandua, erected in A.H. 990/A.D. 1582, was embellished in the same style justifying for its epithet "Golden" or Sona Masjid.

The pre-Mughal monuments of Bengal demonstrated, like the terra-cotta, glazed tile and stone carvings, a distinctive style of calligraphic art. The religious ban on representational art stimulated the development of calligraphy which is mainly divided into three types (i) *Kufic*—a stiff angular script generally written or carved on hard materials. It was evolved in the 4th or 5th century A.D. but became very popular in Kufa in A.D. 638, (ii) *The Naskhi*—cursive, a departure from the angular *Kufic*, attained by Ibn-e-Muqla in the 12th century A. D. (iii) *Nastaliq*—an improvement of the *Naskhi* or round script which mainly flourshed in Persia from the 13th century A. D. It is the combination of *Naskhi* and *Taliq*. Another interesting form of calligraphy is *Tughra* or imperial signature or royal titles, prefixed to letters addressed to diplomats and other documents, in which the letters are so intertwined as to assume a decorative shape, thoroughly illegible.

Zafar Hasan observes, "Calligraphy has played a conspicuous role in the field of decorative art. Inscriptions artistically written formed a decorative feature in Muslim architecture".[47] Muslim epigraphy has contributed enormously to the reconstruction of the political, social and religious history of the Indian-sub-continent. They are either historical or religious in nature, the latter including Qur'anic texts, traditions, moral teachings and passages of ethical nature. The language is Arabic and occasionally Persian in Pre-Mughal period.

The earliest known example of Muslim epigraphy in the sub-continent is the *Kufic* inscription found in the newly excavated Mosque at Banbhore, near Karachi, bearing the date A.H. 109/A.D. 727-28. The finest examples of ornamental *Kufic* are to be seen in the Qutb *Minar* at Delhi A. D. 1232 and the Adina Masjid (Fig. 7) at Hazrat Pandua A.D. 1374-84. This highly prized style of *Kufic* writing assumed utmost pliability in the hands of Bengali calligraphists and carvers working on black

basalt. In the words of Ravenshaw, the inscription over the central *mihrab* in the nave of the Adina Masjid "exhibits a strange calligraphic technique, hitherto unknown in Muslim epigraphic history of Bengal--the combination of *Kufic* and *Naskhi*, the bottom lines are *Naskhi*, while the upper one is *coufique fleuri* (Fig. 7.)."[21] The floreated *Kufic* of Indo-Muslim buildings is to be traced to the Ghazni *minars* as well as the arch of Qal' ah-i-Bist, dated from the 12th century A.D.

The script of Bengal has been characterized from the beginning by delicacy of form and subtlety of arrangement. This striking feature is noticed in the earliest inscription of Bengal carved in the time of Tughril Tughan Khan, in the Bari Dargah at Bihar, dated A. H. 640/A.D. 1242. Floreated *Naskhi*, as seen in the Bari Dargah inscription, is to be found in the earlier epigraphic records in the Qutb *Minar*, the screens of the Quwwat al-Islam Mosque and the Arhai-din-ka Jhopra Mosque as well as in the Masjid-i-Jami' at Qazvin, A. D. 1116 and in the Gunbad-i-Kabud at Maragah, A. D. 1196. Bengal inscriptions in *Naskhi* and *Thulth* styles are to be seen in the Chamkatti Masjid (Pl. XLIIIa), A. D. 1478 and the Tantipara Masjid (Pl. XLIIIb), A.D. 1480, both at Gaud.

Arabic lettering, carved beautifully in stone adorns the walls of many elegant edifices of Bengal. In the style of calligraphic art the inscriptions in floreated *Naskhi* in the *mihrabs* of the zenena gallery at the Adina Masjid (Fig. 6. & Pls. V, IX) recall those of the epigraphic records around the niches of the Tomb of Iletmish at Delhi, erected in A.D. 1235. A strikingly similar combination of *Kufic* and *Naskhi* appears in the portal of the Masjid-i-Jami' at Varamin, A.D. 1322.

Besides a strong Persian influence in language and literature, religious movements and in the manners and customs of Islamic society, Persian architectural ideas reached Bengal with the Persian architects and engravers. Cultural contacts and trade relations between Bengal and Persia were frequent and extensive, aided by a regular maritime trade. The employment of builders and engravers from Persia, Afghanistan and Central Asia is not far-farched, as proved by the Barahdari inscription in Bihar, dated A.H. 663/A.D. 1265, bearing the name of the architect as "Majid of Kabul" and also the inscription of Sultan Sekandar Shah in the *Dargha* of 'Ata Shah at Devikot, Dinajpur, dated A.H. 765/A.D. 1363, bearing the name of the engraver as "Ghiyath, the golden-handed" (*Zarin Dasht*).[48]

The Muslim calligraphers did not feel any scruple to utilize fragments of Hindu or Jaina sculpture in carving out beautiful inscriptions in elegant *Naskhi*, *Thulth* and *Tughra*, keeping the images inside the wall. A. K. Bhattacharyya points out that an inscription in Arabic, carved in *Tughra* is found on the reverse of an image of Adinath, which is recovered from a ruined *Dargha* in the village Sadipur, P. S. Kaliachak, Malda.[49]

The most prolific source of architectural ornament in pre-Mughal monuments is undoubtedly decorative calligraphy. Of all the elegant styles of calligraphic art the most distinctive is the *Tughra*, a form in which, according to A. K. Bhattacharyya,

"the writer has the artist's freedom to shift for decoration's sake any letter or a group of them on to any space suitable from his point of view in utter disregard of any difficulty that the reading involves"[50]. In the *Tughra*, which is probably a Saljuq contribution to decorative art no blank space is spared— but the letters are intricately interwoven with floral patterns. Nowhere else in Indo-Pak sub-continent *Tughra* assumed such a supreme ascendancy as monumental art as in Bengal. The availability of fine-grained and pliable black basalt used in the casing of the Bengal monuments of pre-Mughal Bengal made it possible for the most intricate designs and graceful contour. *Naskhi* style gave rise to *Tughra* by the elongation of the letters and ornamental flourishes. In the inscription of Firuz Shah, dated A. D. 1309, the artists gave new life and vigour by drawing the ligatures and flourishes gracefully. *Tughra* was further developed during the independent Sultanate, as exemplified by the various forms, like the "Bow and Arrow", "Boat and Oars", "Phalanx", etc. The Darasbari inscription of Yusuf Shah, dated A.D. 1479 shows skilful arrangement of upright letters, arrayed beautifully in rows so as to give the impression of a "Muslim congregation". This style of calligraphic art is also evident in the inscription of Fath Shah dated A.D. 1487, which is published by the author. Another inscription of fragmentary nature, which is also noticed by the author, demonstrates the tendency to form letters, like ن ' فی into ringlets. The "Bow and Arrow" type of *Tughra* inscription is to be seen in the epigraphic records of Muzaffar Shah from the Dargha at Hazrat Pandua dated A. D. 1493, which was further elaborated and perfected in the inscription of Husain Shah from "the Cracked Mosque", dated A. D. 1495. According to Yazdani, the inscription of Muaffar Shah, dated 1493, "unquestionably represents the high watermark of Bengal mural calligraphy".[51] The "Boat and Oar" variety of the *Tughra* is to be seen in the epigraphic record of Firuz Shah II from a Ruined Mosque at Guamalti, Gaud, date illegible, in which the motif is represented by the balanced adjustment of the horizontal letters ن and فی with the vertical strokes.

Another superb example of *Tughra* inscription of the later period of Bengal calligraphic art of the pre-Mughal phase is to be seen in the record of Sultan Husain Shah, dated A.H. 905/A.D. 1499 which is published for the first time by the author.

The Bengal school of architecture of pre-Mughal times is distinctive in the sense that it maintained unlike any other provincial manifestations, a thoroughly pointed and brick style, experimenting and perfecting with the artistic ingenuity and prolific architectural contrivances of their masons and craftsmen, various forms of building and decorative art, such as vault, dome, arched screen, two-segmented and four-segmented roofs, stone-cutter's art, terra-cotta decorations, enamelled tile works, etc. The indebtedness of pre-Mughal school of Bengal architecture to Persian building art of the Islamic period is more real than apparent, though it tends to produce a harmonious blend of Perso-Indian features in its finest monuments. On the other hand, Mosque architecture of pre-Mughal Bengal exerted a profound influence on the development

of characteristic features of Mughal architecture as well as Hindu building art of 17th and 18th century Bengal. As observed by McCutchion, "Certainly the Muslims may be said to have revived the art of terracotta as architectural decoration, which does not appear to have continued beyond the 10th century at Pahadpur..." He remarks again, "It was the Muslims who initiated the finely chiselled work so characteristic of 15th century mosques and 17th century temples, introduced a great variety of strip motifs later taken up by the Hindus to fill spaces between their figure panels, and established the basic features of facade decoration."[52] In ambitious planning, balanced and harmonious adjustment of various elements, introduction of new and distinctive features, revival of old architectural ideas and decorative techniques, persistent attachment to indigenous sources for its ornamental and building motifs, gaudy colour scheme of encaustic tile decoration, delicate and lace-like stone chiselling, sophisticated carved brick ornamentation, the Mosque architecture of pre-Mughal Bengal undoubtedly made a profound contribution in the history of world architecture in general and Indo-Muslim architecture in particular.

NOTES AND REFERENCES

1. *ASR*, XV.
2. Burrow, R., in Creighton, *The Ruins of Gour : Described and Represented in Eighteen Views with a Topographical Map*, London, 1817.
3. Rennell, J., *Memoir of a Map of Hindustan or the Mughal Empire*, London, MDCCXCIII.
4. Anderson, J., *Catalogue and Handbook of the Archaeological Collection in the Indian Museum*, Calcutta, 1863. vol II; *Handbook to the Sculptures in the Museum of the Bangiya Sahitya Parishad*, Calcutta, 1922.
5. King, L.B.B., *Archaeological Remains from the Ruins of Gaur and Malda, Letter no. 1151, dated Malda, 29th March, 1875*; *Letter no. 1190*; *dated Malda the 11th Jan, 1876*; *Letter no 605, dated Malda, June, 1875.*
6. Anderson, p.25, refers to Cunningham who mentions that some moulded and carved bricks of Paharpur measure 15½ inches × 10⅞ inches.
7. Marshall, J. H., *AR, ASI*, 1902-3.
8. Cole, H.H., *Second Report of the Curator of the Ancient Monuments in India*, Simla, 1883, p.XCIV.
9. Beglar, J.D., *Archaeological Survey of Bengal Report*, 1888, Calcutta, 1888, p.84.
10. Creswell, K.A.C., *A Short Account of Muslim Architecture*, Pelican, 1958.
11. *SPA*, II, p.916; Smith, M.B. *Persian Islamic brickwork*, in *AF*, vol. LVII, New York, 1932.
12. Pope, A.U., *Persian Architecture: The Gorgeous Background of all Persian Art*, in *Country Life*, Jan.
13. Khan, F.A., *Banbhore, Department of Archaeology, Government of Pakistan*, 1963.
14. Marshall, J.H., *The Monuments of Muslim India*, in *CHI*, Cambridge, 1928.
15. Brown, P., *Indian Architecture* (*Islamic Period*), Bombay.
16. *MAB* ; *See* Review by J. Burton-Page in the *BSOAS*, vol. XXV, Part 3, 1962.
17. Wadia, D.N., *Geology of India*, Calcutta, 1938.
18. Francklin, W., *Ruins of Gaur* (1810-12), Ms. 19, India Office Library.
19. Buchanan-Hamilton, F., *The History, Antiquities, Topography and Statistics of Eastern India* by Martin.
20. Parke, F., *Wandering of a Pilgrim in search of the Picturesque during four and twenty years in the East with Revelations of life in the Zenana.*
21. Ravenshaw, J.H., *Gaur : its Ruins and Inscriptions.* Edited by C. Ravenshaw, London, 1878,pp. 1-20.
22. Havell, E.B., *Indian Architecture*, London, 1927.
23. Saraswati, S.K., *Notes on Two tours in the District of Maldah and Dinajpur*, in *JASB*, vol. XXVIII, No. 1 1932.
24. *ASR*, XV.
25. Fergusson, J., *A History of Indian and Eastern Architecture*, London, 1910.
26. Pope, A.U., *Some Interrelations between Persian and Indian Architecture*, in *IAL*, vol. IX, No. 2.

27. Rivoira, G.T., *Muslim Architecture*, Tr. from the Italian, by G.Mc. N. Rushforth, OUP, 1918.
28. Bazin, G., *A Coincise History of Art*, Tr. from the French by F. Scarbe, London, 1958.
29. Wilber, W.N., *The Architecture of Islamic Iran : Il-Khanid period*, Princeton, 1955.
30. Havell, E.B., *A Handbook of Indian Art*, London, 1920.
31. Dutta, B.K., *Bengal Temples, Visva Bharati Quarterly*, N.S. 15, No. 1, 1955.
32. Bloch, T., *A.R. ASI*, 1903-4.
33. Khan, F.A., *Architecture and Art Treasures in Pakistan*, Karachi, 1969.
34. Chakravarti, M.M., *Bengal Temples and their general characteristics, JASB*, 1909.
35. Abul Fazl, *Ain-i-Akbari*, Tr. by H. Blochmann, vol. I.
36. Richards, I.J., *Geographical factors in Indian Architecture*, in *Indian Antiquary*, vol. XLII, Dec, 1933.
37. Marshall, J.H., *AR, ASI*, 1902-3.
38. Wheeler, M., *The Archaeology of Pakistan*, in *Cultural Heritage of Pakistan*, OUP, 1955.
39. Birdwood, G.C.M., *Industrial Art of India*, London, 1880, p. 305.
40. Ricardo, M., *The Architects' use of enamelled tiles, their qualities and techniques, AR*, vol. XI(ii), 1922.
41. Brown, P., *A Descriptire Guide to the Department of Industrial Art*, London, 1909, Calcutta.
42. Bagchi, P.C., *Political Relations between Bengal and China in the Pathan period*, in *Visva Bharati Annals*, 1945.
43. Codrington, K. de. B., *An Introduction to the study of Islamic art, Indian Art and Letters*, vol. VII, No. 2.
44. Creighton, M., *The Ruins of Gaur*, London, 1817; Orme, R. *Gawre: Description of its Ruins with four inscriptions taken in the Arabic copy, IOL.*
45. Smith, V.A., *A History of Fine Arts in India and Ceylon*, Third edition, Khandalavala, Bombay; Bysack says about the Tomb of Khan Jahan at Bagerhat, "The steps round the grave are inlaid with encaustic tiles of various colours, the richness of which had withstood the wear and tear of four hundred years without any serious damage." Some of the tiles are hexagonal, 4 inches across, while others are squares of 6½ inches each side. '(*JASB*, vol, XXXVI, pt. I, 1867).
46. 'Abid 'Ali Khan, *Memoirs of Gaur and Pandua*, edited by H. Stapleton, Calcutta.
47. Hasan, Z., *Muslim Calligraphy, IAL*, N.S. vol. IX, No. I & 2.
48. Ahmed, S., *Inscriptions of Bengal*, vol. I, Varendra Research Society Museum, Rajshahi, 1960 : Yazdani, G., *Some inscriptions of the Musalman Kings of Bengal, EI*, 1929-30.
49. Bhattacharyya, A.K., *An unpublished Arabic inscription on a Jaina image from Malda*, Bengal, *JASB*, Letters, vol. XVIII, No. I, 1952.
50. Bhattacharyya, A.K., A *study in Muslim Calligraphy in relation to Indian inscription, Indo-Iranica*, vol. IV, Oct. 1950.
51. Yazdani, G., *Two inscriptions of King Hussain Shah of Bengal from Tribeni, EIM*, 1915-16.
52. McCutchion, D., *Hindu Muslim Artistic continuities in Bengal, JASB*, vol. XIII, No.3. December, 1968.

APPENDIX I

TWO BENGAL INSCRIPTIONS IN THE COLLECTION OF THE BRITISH MUSEUM

In pursuit of my research on the development of mosque architecture with special reference to pre-Mughal Bengal, I came across a number of elegantly carved inscriptions on black basalt in the British Museum. Some of them are in an excellent state of preservation, others merely fragmentary. On the basis of their calligraphic style and material contents, the undated as well as the dated inscriptions have been assigned to the Sultanate of Bengal (A.D. 1338-1538). In the following pages two of these inscriptions are republished with facsimiles.[1]

An Inscription of Sultan Yusuf Shah, dated A.H. 883/A.D. 1478, assigned to the Chamkatti Masjid at Gaud

An important inscription bearing the date A.H. 883/A.D. 1478 undoubtedly belongs to Sultan Yusuf Shah, who reigned from A.H. 879-886/A.D. 1474-81. It records the erection of a Mosque at an unidentified place, and is on a curved piece of black basalt, which has unfortunately been broken in half.

Text :

قد بنى هذا المسجد الجامع السلطان الاعظم المعظم الدنيا و الدين ابو المظفر يوسف شاه
السلطان ابن بار بكشاه السلطان ابن محمود شاه السلطان خلد الله ملكه و سلطانه بتاريخ غرة ماه
محرم سنة ثلا[ث] و ثمانين و ثمان ماية -

Translation : "Verily this congregational Mosque was built by the great and exalted Sultan Shams-ud-Dunya wad-Din Abul Muzaffar Yusuf Shah, the Sultan, who is the son of Barbak Shah, the Sultan, son of Mahmud Shah, the Sultan, may Allah perpetuate his kingdom and sovereignty; dated the first of the month of Muharram in the year eight hundred and eighty three, A.H. 884 (4 April, 1478.)" (Pl. XLIIIa).

As has been said, the record in question is split into two unequal halves. The split, occurring on a slant, has divided the piece into two, the larger portion measuring 4 ft. 8¾ in. in length and the smaller 3 ft. 11 in. The enormous but superbly carved epigraphical record is 1 ft. 8½ inches in height, 8 ft. 7¾ inches in total length, and 3½ inches thick. The single-line inscription is engraved in an elegant *Naskhi* style. It is written on the top, "Presented by Col. Francklin" (the celebrated author of the MS description of Gaur, 1810-12, now in the India Office Library, London, numbered MS 19).[2]

Before dwelling on the controversial theme of its identification of the inscription with a specific architectural monument, it is interesting to note a few discrepancies in Francklin's *Ruins of Gaur*.[3] He seems to have depended upon an eye-copy for his decipherment. Incidentally, Shyam Prasad, the author of a Persian MS entitled *Ahwal Gaur*

wa Pandua and the Munshi of Ellerton of the Guamalti Indigo Factory, associates this inscription with an unidentified mosque called the Mahajantola Mosque. This Persian MS is in the India Office Library, numbered Ethe 2841, and has been published without English translation by A.H. Dani.[4]

Although broken into pieces, the stone provides a complete epigraphical record in an immaculately neat and legible script. Col. (then Major) Francklin says that he found the inscription in "a mosque called Mahajan Tolah, adjoining the Lattan Masjid and of the same kind of architecture."[5] In his transcription there are a few inaccuracies and omissions, for example, he reads هذا as هذ , الدنیا و الدین as الدین و الدنیا and بتاریخ as التاریخ. Francklin also omitted a few words, such as السلطان after یوسف شاه , and شاه after باربک which is found in the inscription jointly, باربکشاه. But the most serious of all his omissions was ثلا[ث]' which he left out after سنة and before ثمانین. He translated the date of the construction as "first of the month of Muharram, Anno Hijera 800". It is clear from the inscription that the mosque referred to here was built and the inscription engraved on the first of the month of Muharram in the year 883, corresponding to April 4, 1478, and not A.H. 880/A.D. 1475.

Shyam Prasad at the request of Francklin also read the inscription, but makes the same mistake. Curiously enough, Grote did not check the transcription when he annotated Ravenshaw's *Gaur : its ruins and inscriptions*, with massive extracts from Francklin's MS.[6] Cunningham unhesitatingly ascribed the inscription mentioned by Francklin to the Chamkatti Masjid.[7]

It may not be out of place to observe here that M.S. Briggs attempted to correct the date. He writes on July 26, 1930, "The letter ث of *Sulasa* or *Thulatha* is omitted, reading the datable portion thus :

بتاریخ غرة ماه محرم سنة ثلا[ث] ثمانین و ثمانمایه"[8]

It is, therefore, evident that he saw the British Museum record and checked the translation of Francklin. But strangely enough, he makes the above observations in connection with another inscription of Yusuf Shah dated Monday, the 14th of the month of Muharram, A.H. 885. According to Francklin, this appears in front of the Golden Mosque at Hazrat Pandua.[9] Beveridge in his Notes on Francklin's *Ruins of Gaur* says that the inscription bearing the date A.H. 885 and referring to Yusuf Shah can have nothing to do with the Pandua mosque, and in fact no such inscription appears there.[10] Therefore the assignment of the Golden Mosque at Hazrat Pandua to the reign of Yusuf Shah is hardly justified, as the Golden Mosque was inscribed and built in A. H. 900/A. D 1582.[11] In fact, the inscription bearing the date A. H. 885/A.D. 1480 has been assigned to the Tantipara Masjid at Gaud, which is noticed later. In brief, Briggs' observation in connexion with an inscription dated A. H. 885 can only be relevant to the inscription bearing the date A. H. 883, wrongly deciphered

as A. H. 880 by Francklin and so accepted by Cunningham, 'Abid 'Ali, Dani, Saraswati, M. M. Chakravarti, etc.[12] Creighton did paint the Chamkatti Masjid but does not mention its date of construction, nor is the date mentioned by Orme, Daniell, or Ravenshaw.[13]

The inscription records the erection of a Jami' Masjid by the ruler himself, that is, Sultan Yusuf Shah, clearly indicating the fact that it was a royal enterprise. Scholars differ in their opinions about the identification of the mosque referred to in the British Museum inscription, which, as we have seen, is dated A.H. 883. Francklin ascribed the inscription to the Mahajantola Mosque, adjoining the Lattan Masjid, which maintains "the same style". The Mahajantola and the three neighbouring mosques, namely, the Chamkatti on the north of the region known as Mahajantola, the Tantipara Masjid on the west, and the Lattan Masjid to the south of the Tantipara at the south-west side of the area, are all roughly situated within half a mile radius.

Criticizing the views of Francklin, Grote writes, "A reference to the map will show Mahajantolah to be about half a mile to the North east of the Tantipara Mosque to which no allusion is made in Francklin's Report. Creighton's Map also gives Mahajantola but without any indication of a mosque there. The Tantipara Mosque is the only one near the Lattan Masjid.[14] The absence of any existing ruins called Mahajantola coupled with the lack of reference to any such building by Ilahi Bakhsh, Cunningham, or others suggests that there was no such structure at all. Moreover, the use of term "Mahajantola area"must have misled Francklin in the description of it as a mosque.

With regard to the alleged date of construction given by Francklin, A.H. 880, Grote says that Creighton referred to an inscription bearing the same date as the Lattan Masjid. About the Lattan Masjid record Cunningham writes, "Creighton states that it was built in A.H. 880 by Yusuf Shah, and though he says nothing about any inscription, I feel satisfied that he must have seen one, either attached to the building, or lying somewhere near it, and has forgotten to quote it, as he is always very careful to note his authorities for the dates which he gives. At the time of Francklin's visits the inscription had certainly been removed. The vacant panel in which it was fixed over the middle doorway is 6 feet 6½ inches in length by 1 foot 11½ inches in height, which I record here in the hope that some day the inscribed slab belonging to the Masjid may thereby be identified".[15] The descriptions given by Cunningham correspond clearly with those of the British Museum panel.

A further confusion remains to be cleared up. The inscription of the Lattan Masjid as given by Creighton corresponds with the alleged date of the British Museum inscription given by Francklin, who believed it to have belonged to the Golden Mosque at Haẓrat Pandua, which bears the date A.H. 880. The British Museum panel would not fit in the Lattan Masjid, though this mosque is uninscribed. Moreover, on the basis of architectural style and decoration the Lattan Masjid has been convincingly proved by Dani to have belonged to the reign of Husain Shah. He writes, "This date

A. H. 880 of Cunningham cannot be accepted against the overwhelming evidence of the style of the mosque. It does not fit in at all with the monuments of the Ilyas Shahi period. Its plan is, no doubt, the same as in the Chamkatti Mosque, but its character definitely places it in the Husain Shahi period."[16]

Grote thinks that Francklin's Mahajantola mosque must be none other than the neighbouring Tantipara Masjid, lying half a mile north-east of the former monument, as noted earlier.[17] Creighton refers to another stone slab, bearing the date A.H. 885, found near the Tantipara Mosque, which was also erected by Yusuf Shah.[18] According to Cunningham, it had two inscriptions, the outer slab measuring 5 ft. ½ in., in length and 1 ft. 8 in. in height, which is quoted by Creighton, and the inner stone measuring 2 ft.9 in. in length and 1 ft. 6 in. in height which was placed over the southern doorway of the courtyard of the "Qadam Rasul Mosque" (shrine), to which it cannot possibly belong. Neither of the two records mentioned by Creighton and Cunningham is identical in dimensions with the British Museum slab. The British Museum has also another inscription of Yusuf Shah bearing the date A.H. 885, which has also been assigned to the Tantipara Masjid. Therefore it seems that the British Museum inscription in question, dated A.H. 883, cannot be attributed to either the Tantipara Masjid or the Lattan Masjid.

Cunningham writes, "Its (i.e. the Chamkatti Masjid) inscription slab is gone, but the panel in which it was fixed is 4½ feet long, which measurement may hereafter perhaps lead to its identification." I think, however, it may be the identical inscription of A.H. 880 preserved by Francklin, which he says was copied from a mosque "called Mahajan Tola, adjoining the Lattan Masjid, and of the same kind of architecture."[19] Now this description can apply only to the Chamkatti Masjid, which stands in the very middle of Mahajantola, about half a mile from the Lattan Masjid, with which it corresponds most exactly, both in ground plan and in style.[20]

The most intriguing part of Cunningham's argument is the divergence between the measurements of the British Museum stone and those of the Chamkatti Masjid panel. The panel of the missing slab of the Chamkatti Mosque is 4½ feet in length, whereas the British Museum slab in its entirety measures 8 ft. 7 in. in length.

The year A.H. 880, therefore, was probably marked by the erection of a number of elegant mosques under the lavish patronage of Yusuf Shah. These include the Chamkatti Masjid, the Tantipara Masjid, and the Darasbari Masjid.

The present inscription has been noticed by many historians and epigraphists but they had no facsimile available by which to establish the correct transcription.Athough the engraver inadvertently left out the last letter ث of the word ثلث, it is evident that it could not be other than *Thulth*, making the date A.H. 883/A.D. 1478-9. The only objection lies in the fact that the British Museum record is too big in size to fit in the small penel on the Chamkatti Masjid mentioned by Cunningham. Compared with the large sizes of black basalt used in engraving and calligraphic style in the inscription of the Tantipara Masjid and the Darasbari Masjid, it could indeed be

said that the British Museum slab belonged to the Chamkatti Masjid. That of the Darasbari Masjid built by Yusuf Shah in A.H. 884/A.D. 1479 measures 11 ft. 3 in. in length and 2 ft. 1 in. in height. Calligraphically, the British Museum slab demonstrates a remarkable skill in high relief and complete mastery of style on the part of the engraver.

Another Inscription of Sultan Yusuf Shah, dated A. H. 885/A. D. 1480 assigned to the Tantipara Masjid at Gaud

The date of the Tantipara Masjid, described by Cunningham as "the finest of all the buildings now remaining in Gaur", is uncertain, as the inscriptions are missing from their panels both inside and outside the building. Creighton assigned an inscription bearing the date A.H. 885/A.D. 1480 to the Tantipara Masjid and says that he found it near the mosque.[21] Cunningham also refers to the inscription, which he ascribes to this mosque.[22] Ravenshaw noticed another inscription bearing the date A.H. 885 of which he writes, "On the northern gate of the court in which the mosque (shrine) of Qadam Rasul stands there is an inscription on a black slab, dated A. H. 885/A.D. 1480. This has evidently been removed from its original place, and is thought to have belonged to a mosque not far distant, now in entire ruins."[23] This inscription cannot belong to the shrine of Qadam Rasul, which is dated A.H. 909/A.D. 1503, or to its gateway, which is dated A.H.937/A.D. 1530-31. In connection with the date of the Tantipara Masjid he writes, "There is no clear proof of its date but a stone inscription said to have been taken from it mentions Yusuf Shah."[24] Grote in his annotation of Ravenshaw's *Gaur* supports the views of the author. This inscription, which runs as follows, must have originally been placed in the *qibla* wall above the central *mihrab*.

Text :

قال النبی علیه السلام من بنی مسجدا لله تعالی اسبعین قصرا فی الجنة - بنی هذا المجسد
فی عهد السلطان ابن السلطان ابن السطان شمس الدنیا و الدین ابو المظفر یوسف شاه السلطان
ابن باربکشاه السلطان ابن محمود شاه السلطان بنی هذا المسجد خان اعظم و خاقان معظم مرصاد خان
اتابک رایت اعلی بتاریخ قردهم ماه مبارک رمضان سنة خمس و ثمانین و ثمانمایة -

Translation : The Prophet—may the peace (of Allah) be on him!—has said, "Whoever builds a mosque for Allah, Allah will build for him seventy places in Paradise." This mosque was built in the reign of the Sultan, son of the Sultan, Shams ud-Dunya wad-Din Abul Muzaffar Yusuf Shah, the Sultan, son of Barbak Shah, the Sultan, son of Mahmud Shah, the Sultan. This mosque was built by the great Khan and the exalted Khaqan, Mirsad Khan Atabak Rahat A'la ("of the exalted banner") on the 18th of the holy month of Ramazan, A.H. 885 (Tuesday, 21st November, 1480).[25]

Both Blochmann and Ravenshaw read the date as the 10th day of the holy month of Ramazan, A.H. 885, corresponding to November 13, 1480. Horn read it as the 13th day of Ramazan, A.H. 885, corresponding to November 16, 1480. Shamsuddin Ahmed deciphers it as the 18th day of Ramazan, A.H. 885, corresponding to November 26, 1480.

Regarding the Tantipara inscriptions, Cunningham writes, "From an inscription found nearby, Creighton gives its date as A.H. 885. Now this I believe to be the true date of the building for the following reason. The Tantipara Mosque had two inscriptions, one on the outside measuring 5 feet ½ inch by 1 foot 8 inches, and the other inside measuring 2 feet 9 inches by 1 foot 6 inches. The former I take to be the record quoted by Creighton, while the latter must be a small slab which is now fixed over the doorway of the courtyard of the Qadam Rasul Mosque(?), to which it cannot possibly belong. Now this inscription is also dated in A.H. 885, and its dimensions agree perfectly with those of the vacant panel inside the Thantipara Masjid. The slab measures 2 feet 4 inches by 13 inches, or just 5 inches less than the broken panel both in length and in breadth. As this would allow a border of one brick thick all round the slab, which was the usual way of fixing the inscriptions, I think there can be little doubt that it must have belonged to the Thantipara Masjid."[26] Therefore, Cunningham quite convincingly assigns the inscription fixed in the gateway of the "Qadam Rasul Masjid" at Gaud to the Tantipara Masjid, as having once occupied the vacant panel above the central *mihrab*.

In the British Museum there is an inscription belonging to the reign of Yusuf Shah. It is unfortunately broken into three unequal fragments, bearing the date A.H. 885/ A.D. 1480. The text along with the translation is given below.

Text :

السلطان بن السلـ[ط]ان بن محمود شاه السلطان خلد الله ملكه و سلطانه تاريخ يوم الاثنين اربع
عشرة فى شهر محرم سنه خمس و ثمانين و ثمانماية -

Translation : The Sultan, son of (Sultan), son of Mahmud Shah Sultan, may Allah perpetuate his kingdom and the sovereignty; dated Sunday the 14th day of the month of Muharram in the year eight hundred eighty five (A.D. 1480).[27] (Pl. XLIIIb)

The British Museum inscription is carved on a specially prepared black basalt slab, measuring approximately 5 feet in length and 1 ft. 8 in. in height. The inscription is in Arabic, of a single line. Francklin noticed this record but he wrongly ascribed it to the Golden Mosque at "Purruah" or Hazrat Pandua, which is generally known as the Qutb Shahi Mosque.[28] As this mosque is dated A.H. 990/A.D. 1582, the British Museum record dated A.H. 885 can have no bearing on it. Beveridge in his review of Francklin's *Gaur* reaches the same conclusions. He writes, "Francklin's inscription, therefore, cannot belong to it, for the small golden mosque was erected in the reign of Husain Shah in the early 10th century A.H. Nor can it, as we have just seen, belong to the Pandua Golden Mosque."[29] Most probably the inscription belonged to the Tantipara Mosque at Gaud. Creighton, as quoted by Grote (p.30), states that an inscription was found near the Tantipara Masjid with the same date as Francklin's inscription, A.H. 885. Grote conjectures that the inscription referred to by Creighton is now at the shrine of Qadam Rasul. This was published by Ravenshaw

(p.22). He says that this inscription is supposed to have belonged to a mosque not far distant, now in entire ruin. The latter part of his description does not apply to the Tantipara Masjid.

Grote accepts Beveridge's views, and explicitly says, "not only is there no inscription of Yusuf Shah on the front of the Masjid, but there is no place for it."[30] In conclusion, therefore, it may be said that the British Museum inscribed panel was originally placed above the central arched entrance on the eastern facade of the Tantipara Masjid, as its measurements agree with the vacant place in the mosque.

Calligraphically, the British Museum record of Sultan Yusuf Shah and the Darasbari inscription dated A.H. 884/A.D 1479-80 mark the transition from the ornate variety of *Naskhi* to the sophisticated *Tughra* form. The vertical letters of the Tantipara Masjid inscription measure no less than 17½ inches and are half an inch thick. These are skilfully arranged to form an intertwined design.

NOTES AND REFERENCES

1. This is based on part of my thesis : "*The development of mosque architecture with special reference to pre-Mughal Bengal,*" Ph. D. thesis, University of London, 1965.
Reproduced from the *Journal of the Royal Asiatic Society*, October, 1966, pp. 141-47.
2. Francklin, W., *Ruins of Gaur*, 1810-12, India Office Library, MS 19, p.32.
3. *Ibid.*, pp. 32-33.
4. Shyam Prasad, *Ahwal Gaur wa Pandua*, Ethe's Catalogue of Persian MSS, vol. I, Oxford, 1903, p. 1541. No. 28, India Office Library, No. 2892, careless *Nasta'liq*, 11½ in. ×7⅝ in. See A.H. Dani, *Muslim Architecture of Bengal*, Dacca, 1960, Appendix, p. 17.
5. op.cit. p.32.
6. Grote, A., *Annotations to Ravenshaw's Gaur : its ruins and inscriptions*, London, 1878, ed, C. Ravenshaw, p.30. Incidentally, Ravenshaw did not notice the mosque, most probably, as put by Cunningham (*ASR*, XV, p. 60), "because the greater part of the front has now fallen down".
7. loc. cit.
8. Francklin, op.cit., p.29.
9. *Ibid.*, p. 28.
10. Beveridge, H., "*Major Francklin's MS description of Gaur*", *JASB*, LXII, 1894, p.88.
11. Ravenshaw, J.H., *Gaur : Its ruins and inscriptions*, London, 1878, p. 56.
12. *ASR*, XV, p. 61; 'Abid 'Ali Khan, *Memoirs of Gaur and Pandua*, ed. H.E. Stapleton, Calcutta, 1931, p. 69; A.H. Dani, op.cit., pp.121-22; S.K. Saraswati "*Indo-Muslim Architecture of Bengal*", *Jl SOA*. IX, 1941, p. 22; M.N. Chakravarti, "*Pre-Mughal Architecture of Bengal,*" *JASB*, VI, 1910, p. 26.
13. Creighton, H., *The ruins of Gaur, described and represented in eighteen views with a topographical map*, London, 1817, Pl. XV. See also R. Orme, *Gowre : description of its ruins with four inscriptions taken in the Arabic*, India Office Library, Orme MSS 65·25, pp.171-7 (reproduced in E.G. Glazier, *A report on the District of Rungpore*, Calcutta, 1873, cited by Stapleton in his edition of 'Abid' Ali's *Memoirs*, p. 63. n. 1); H.E.A. Cotton, "*The Daniells in India, Bengal Past and Present*, XXV, Part I, Series No. 49.
14. op.cit. p.30.
15. *ASR*, XV, p.61.
16. op. cit., pp. 121-22.
17. loc.cit.
18. op. cit., Pl. XXII.
19. *ASR*, XV. pp. 60-1; Francklin, op.cit, p.32.
20. Pemberton, J.J., *Geographical and Statistical report of the District of Maldah*, Calcutta, 1854, topographical map of the station of Maldah, its vicinity and the ruins of Gaur, surveyed in the season 1847-48, does not show the location of this mosque. See Creighton's map of Gaur surveyed in 1801 and *ASR*, XV, Pl. XIII.

21. Creighton, op.cit. Pl. XII; See also S.Ahmed, *Inscriptions of Bengal*, vol. IV, Varendra Research Museum, Rajshahi, 1960, pp. 106-9; H. Blockmann, "*Contributions to the Geography and History of Bengal* (*Muhammadan Period*)", *JASB*, 44, 1, 1873, No. 3, p. 277.
22. *ASR*, XV,p.61.
23. op. cit., pp. 22, 32, Pl. 48, No. 6.
24. *Ibid.*, p. 30, see also Beveridge, op.cit, p. 89.
25. Horn, P., "*Muhammadan Inscriptions from Bengal*", *Epigraphia Indica* II, pp. 284-8, He reads the date as the 13th day of Ramadhan A.H. 885, corresponding to 16 Nov. 1480; Ahmed, op.cit., pp. 106-8. The date should be 21 November, not 26 November as he states.
26. Grote, Ravenshaw's Gaur, p. 56. n. Curiously endough Ahmed has omitted this, although it was published by Grote without any facsimile.
27. Grote quotes Francklin in annotating the Tantipara Masjid, but the inscription, bearing the date A.H. 880, has been corrected to A.H. 883, belonging to the Chamkatti Masjid, as shown in the first part of the article : Ravenshaw, op. cit. p. 30.
28. Francklin, op. cit., pp. 28-9, 32-3. Of the two other inscriptions, now in the British Museum, one has been ascribed to the Chamkatti Masjid, as discussed above and the other has been noticed by me in *Asian Review*, August, 1965; "*A Firuz Shah II Fragment* (A.H. 892-96/A.D. 1486-90).
29. op. cit., pp. 88-89.
30. See p. 145, n. 1; Ravenshaw, p. 22 pl. 48, no. 6.

APPENDIX II

A *MIHRAB* FROM THE CHHOTO SONA MASJID AT THE ROYAL SCOTTISH MUSEUM, EDINBURGH

"Indian : 15th-16th century? Probably from the Chhota Sona Masjid '(Small Golden Mosque) at Gaud, Bengal, built 1493-1519. Total height 8′-3″, width 4′-5″. Total number of blocks in *mihrab* 29 (including one restoration). The stone floor-slab is not original. Bought £100. Presented to the Elgin and Morayshire Literay and Scientific Association in 1852 by Mr. James William Grant of Wester Elchies, Morayshire. Mr. Grant served the East India Company in Bengal from 1805 to 1849 when he retired to Elchies. *Entry* : 1958, March 13th (Inventory).

It is a *Mihrab* (prayer niche) (Pl. XL) of dark grey basalt carved with arches and formalised flower ornaments. The facade is formed by two pillars and a lintel with ogival scalloped arch. The semi-circular interior is composed of large blocks of stone, carved with arches and decorative bands and curving at the top into a dome.

The pillars are each cut from a single block. They are carved on two adjacent sides, the other two sides being left rough to set into the masonry of the original building. The bases and capitals are square in section : the columns between them are in three parts divided by raised knobbed horizontal bands, the centre part being circular in section, the other two square. The base has a band of formal upright beams at the bottom, with a milled band above. The upper and lower parts of the column are carved with rectangles, each containing an arch and a formalised inverted tulip-like flower. The central part of the column is divided into long thin rectangles containing similar flowers. The capitals have a projecting rectangle at either side carved with a large formal curled petal. Height of pillars 5′-6″.

The lintel arch is bordered round the edge and round the arch with a band of intertwined foliage. The arch has four scallops on either side and the point of arch is surmounted with a formalised flower head. On each side is a large open lotus flower with the petals in three concentric rings. Each flower has a wavy stem and tendrils and lotus flowers in profile, filling any empty spaces. Height of lintel 2′-1″; width 4′-5″.

Between the pillars and lintel are two small blocks containing the scallops of the arch. That on the left is a restoration, that on the right is partially broken, but has the lower part carved with a continuation of the border of intertwined foliage. Height of blocks 8″.

The interior curves into slightly more than a semi-circle, with an average arc of 5′-10″, the top sections curve inwards to form a dome. It is carved, from the bottom to the top, as follows :

(a) Three horizontal blocks, carved at the bottom with interlacing, and above with a band of arabesque. Height of blocks 9½";

(b) Six blocks forming nearly five panels of carving. The panels are bordered all round and horizontally through the middle with a guilloche band, each loop of the guilloche containing a lotus head in profile. The ten rectangles thus formed contain arches with implicated pillars and lintels similar to the main lintel of the *mihrab*. Each arch contains a formalised inverted flower, the foliage filling the top of the arch, the flower head and a pair of stiff leaves hanging between the pillars. Each pair of rectangles differs in small details from its fellows. The pairs at the extreme left are cut off, lacking their left hand pillars and guilloche border. Height of blocks 3'-3";

(c) Three blocks forming a border of long pendent flower heads with a slightly projecting band of shorter upright flower heads above. The left hand block is deeper as it has at its bottom the guilloche border belonging to this top of the two panels below. Height of blocks at right hand side 6½";

(d) Three blocks (one broken), forming a horizontal border of guilloche containing lotus flower heads. Height of border 3½";

(e) Four blocks forming an overhanging border of petals with a vertical border of lotus buds above. Height of blocks 4¾";

(f) Five blocks curving inwards to form a dome (half). The bottoms of the blocks carved with a narrow border of sloping petals, the blocks forming five panels containing inverted pendent tulip-like flower, the panels being divided by bands of guilloche containing lotus flowers. Height of blocks 1'-8". Arc at top of block 2'-2½". The top stone of the dome is missing.

The *mihrab* in question is supposed to be the central prayer niche of the Chhoto Sona Masjid at Gaud, which has been taken to England as a priceless object of art. It marks the finest attainment of stone carvers' art with its ultra-refined elegance.

SELECT BIBLIOGRAPHY

Ahmed, Sayyid, *Asar-as-Sanadid*, quoted by A. Cunningham, *ASR*, vol. XV.

Ahmed, Shamsud-Din, *Inscriptions of Bengal*, vol. IV, Varendra Research Museum, Rajshahi, 1960.

Anonymous, *Gour, Mandoo and Bijapore*, in *Asiatic Journal and Monthly Register*, N. S., 1835.

Bagchi, P. C., *Political Relations between Bengal and China in the Pathan Period*, in *Visva Bharati Annals*, 1945.

Bakhsh, Ilahi, *Khurshid-i-Jahan Numa*, edited and translated by H. Beveridge, in *JASB*, vol. LXIV, Part I, 1895.

Banerjee, R. D., *Eastern Indian School of Mediaeval Sculpture*. Delhi, 1933.

— *Bangalar Itihas*, vol. II, Calcutta, 1321-4, (1915-17).

Banerjee, R. L., *Identification of certain tribes mentioned in the Puranas with those noticed in Col. E.T. Dalton's Ethnology of Bengal*, in *PASB*., Jan., 1874.

Beglar J.D., *Archaeological Survey of Bengal Report*, 1888, Calcutta, 1888.

Begum, Gulbadan., *Humayun-nama* (*The History of Humayun*), Tr. by A.S. Beveridge, London, 1902.

Bengal District Administration Report, 1922.

Beveridge, H., *Major Francklin's MS. description of Gaur*, in *JASB*, vol. LXIII, 1894, Pt. I, No. 2.

— *A short notice of a Persian MS. on Gaur*, in *JASB*, vol. LXXI, Pt. No. 1, 1902.

Bhattasali, N. K., *Coins and Chronology of the early Independent Sultans of Bengal*, Cambridge, 1922.

Bloch, T., *AR, ASI, EC*, 1902-3, 37-59 ; 1903-4, 46-53.

Bolton, C. W., *Annual Address : Notes on Gaur and Pandwa*, in *PASB*, 1903, 22-7

Bose, S. N., *Ibn Batuta's travels in Bengal* : Appendix I to Bhattasali's *Coins and Chronology*............

Burton-Page, J., *Review of Muslim Architecture of Bengal by A. H. Dani*, in *BSOAS*, vol. XXV, Pt. 3, 1962.

Brown, P., *Indian Architecture* (*Muslim Period*), Bombay, N. D.

Buchanan-Hamilton, F., *Account of Dinajpur*, MS. Eur. D. 71, India Office Library, London.

— *A Geographical, Statistical and Historical Description of the District or Zila of Dinajpur in the Province or Soubah of Bengal* (1807-8), Calcutta, 1833.

— *The History, antiquities, topography, and statistics of Eastern India*, by M. Martin, London, MDCCCXXXVIII, vols. I-III.

Buckland., *India Intra and Extra Gangen*, in *Bengal Past and Present*, vol. II, No. I, 1908.

Burgess, J., *Geography of India with extract from a paper by late Prof. H. H. Wilson* (pp. 418-21), in *IA*, vol. XX, 1891.

Chakravarti, M. M., *Notes on Gaur and other old places in Bengal*, in *JASB*, 1910, July, vol. V, No. 7.

— *Pre-Mughal Mosques of Bengal*, in *JASB*, vol. VI, NS, 1910.

Chakravarti, R. K., *Gaurer Itihas*, vol. II, Malda, 1910.

Chambers, Unpublished MS. : "*The Ruins of Gaur*" noticed by F. Parke, in *Wandering of a Pilgrim in search of the picturesque during four and twenty years in the East with Revelations of life in the Zenana*, vol. II, London, 1850.

Choudhury, J.N., *Gaur O Pandua*, Calcutta, 1328 (1922).

Chunder, B.N., *The Travels of a Hindoo : To various parts of Bengal and upper India*, London, 1869, vol. I.

Cole, H. H., *Second Report of the Curator of Ancient Monuments in India*, Simla, 1883.

Colebrooke, R.H., *On the course of the Ganges through Bengal*, in *Transactions of the Asiatic Society* (*Asiatic Researches*), VII.

Cotton, H.E.A., *The Daniells in India, an unpublished account of their journey from Calcutta to Garhwal*, in *BPP*, vol. XXV, Pt. I, Serial No. 49, 1923.

Creswell, K.A.C., *The vaulting system of the Hindola Mahal at Mandu*, reprinted in *Indian Antiquary*, July, 1918, vol. XLVII.

Creighton, H., *The Ruins of Gour : Described and represented in eighteen views with a topographical Map*, London, 1817.

Cunningham, A., *Archaeological Survey Reports*, vol. XV, Calcutta, 1882.

Dames, M.L., *The book of Duarte Barbosa : An Account of the countries bordering the Indian Ocean and their inhabitants*. Translated from the Portuguese Text and edited and annotated by M.L. Dames, London, 1918-21, Hakluyt Society.

Dani, A.H., *Muslim Architecture of Bengal*, Dacca, 1961.

— *Bibliography of Muslim Inscriptions of Bengal*, in *The Journal of the Asiatic Society of Pakistan*, vol. II, 1957, Appendix.

Darmesteter, J., *La grande inscription de Qandahar* in *J.A.* Tome XV, 1890.

Day, N.Z., *The Geographical Dictionary of Ancient and Mediaeval India*, Calcutta, 1927.

Diez, E., *Manara*, in *EI*, vol. III, 1936.

Eckford, L. C., *Travels of Fray Sebastian Manrique*, 1629-43, Oxford, MCMXXVII.

Fergusson, J., *The Illustrated Hand Book of Architecture*, London, 1855.

— *A History of Indian and Eastern Architecture*, London 1910.

Firista, A.Q., *Tarikh-i-Firista*, Tr. by Elliot and Dowson, vol. II.

Firminger, W.K., *Notes on Malda, Gaur and Pandua* in *BPP*, vol. VIII, 1914.

Francklin, W., *Ruins of Gaur* (1810-12). Completed in Bhagalpur, April, 1812. A sketch Map drawn by the officials of the India Office Library, bearing date 24-5-1910 is also attached, illustrating the route of Major Francklin; Journal of a Route from Rajemehul to Gaur, A.D. 1811.

Grote, A., *Annotations to Ravenshaw's Gaur : its Ruins and Inscriptions*, London, 1878.

Hasan, S.M., *The Adina Masjid at Hazrat Pandua*, March, 1970.

Horton, Ryley. J., *Ralph Fitch : Merchant of London, England's Pioneer to India and Burma*, London, 1899.

Horn, P., *Muhammadan Inscriptions from Bengal*, in *Epigraphia Indica*, vol. II, ASI, N.S.

Hunter, W.W., *A Statistical Account of Bengal*, London, 1876.

Husain, A.B.M., *Review of Dani's Muslim Architecture of Bengal*, in *Journal of the Asiatic Society of Pakistan*, vol. VIII, No. 2, December, 1963.

The Imperial Gazetteer of India, vol XII, Oxford, 1908, N.E.

Khan, 'Abid 'Ali, *Memoirs of Gaur and Pandua*, Edited and revised by H.E. Stapleton, Calcutta, MCMXXXI.

King, L.B.B., *A Letter from Mr. L.B.B., King, officiating Collector of Maldah to the Government of Bengal dated 29th March*, 1875. *On the present state of the ruins of Gaur*, in *PASB*, 1875.

— *Archaeological Remains from the Ruins of Gaur and Malda*, Letter No. 1151, dated Malda, 29th March, 1875 : in *Archaeology and Photography. Proceedings of the Lieutenant Governor of Bengal*, Head No. 1, Branch V.

—Ditto, Letter No. 1190, dated Malda the 11th Jan., 1876.

—Ditto, Letter, No. 605, dated Malda, June, 1875.

Lambourne, G.E., *Bengal District Gazetteers*, Malda, vol. XXV, Calcutta, 1918.

Maitra, A.K., *Ancient Monuments of Varendra (North Bengal) : Principal ancient sites and monuments hitherto traced in Varendra*, Rajshahi, 1949.

Marshall, J., *The Monuments of Muslim India*, in *Cambridge History of India*, Cambridge, 1928.

Marco Polo., *The Travels of Marco Polo together with the Travels of Nicolo Conti*, Tr. by N.M. Penzer, London, 1929.

McCutchion, D. *Hindu Muslim artistic continuities in Bengal*, *JASB*, vol. XIII, No. 3, December 1966.

Nizam al-Din Ahmad., *Tabaqat-i-Akbari*, Tr. by B. De, Calcutta, 1927.

Orme, R., *Gawre : Description of its Ruins with four insciptions taken in the Arabic copy*, India Office Library, Orme MS. OV. 65.25, 171-77. Published incorrectly in a Report on the District of Rungpore, by E. Glazier, Calcutta, 1873, 107-110.

Pargiter, F.E., *Ancient countries in Eastern India*, in *JASB*, vol. LXVI, 1897.

Parker, F., *Wandering of a Pilgrim in search of the picturesque during four and twenty years in the East with Revelations of life in the Zenana.*

Pemberton, J.J., *Geographical and statistical Report of the District of Malda*, Calcutta, 1854.

Perrot, G. & Chipiez, C., *History of Art in Persia*, Tr. by I. Gonino, London, 1892.

Prasad, Shyam, *Ahwal Gaur wa Pandua*, Ethe's Catalogue of Persian MSS., vol. I,

Ravenshaw, J. H., *Gaur : its Ruins and Inscriptions*, edited by Mrs. C. Ravenshaw and annotated by A. Grote, London, 1878.

Rennell, J., *Memoir of a Map of Hindustan or the Mughal Empire*, London, MDCCXCIII.

— *A Bengal Atlas : containing Maps of the theatre of war and commerce*, London.

Revised list of Ancient Monuments in Bengal, 1886.

Richards, I.J., *Geographical factors in Indian Archaeology*, in *Indian Antiquary*, vol. LXII, Dec., 1933.

Roy, N. B., *Rise of the Ilyas Shahi Dynasty*, in *History of Bengal*, vol. II. Muslim Period, 1200-1757. Edited by J.N. Sarkar, The University of Dacca, 1948.

Salim, Ghulam Husain, *The Riyazu s-Salatin*, Tr. by Abdus Salam, Bibliotheca Indica, Calcutta, 1904.

Saraswati, S.K., *Notes on Two tours in the Districts of Maldah and Dinajpur*, in *JASB*, vol. XXVIII, 1932, No. 1.

— *Indo-Muslim Architecture in Bengal*, in *Journal of the Indian Society of Oriental Art*; vol. IX, 1941.

Sauza, Faria y, *Manuel de Faria y Souza : History of the Discovery and Conquest of India by the Portuguese*, quoted by H. Creighton,

Oxford, 1903, p. 1541. No. 2841. India Office Library. Careless Nastaliq, 11½" by 7½". Published by A.H. Dani, in his *MAB*.

Sircar, P.C., *Outlines of the Geography of India*, Calcutta, 1869.

Sleeman, W. H., *Rambles and Recollections of an Indian Official*, vol. II, edited by V.A. Smith, London, 1915.

Standard French-English Dictionary, Part I, edited by J.E. Mansion, Harrap,

Steingass, *A Comprehensive Persian English Dictionary*, London.

Stewart, C., *The History of Bengal, From the First Mahommedan invasion until the virtual conquest of the country by the English*, 1757, London, 1813.

Terry, J., *The Charms of Indo-Islamic Architecture*, London, 1955.

Thomas, E., *The Chronicles of the Pathan Kings of Delhi*, London, 1871.

— *The Initial Coinage of Bengal introduced by the Muhammadans on their conquest*, 600-800 (1203- 1397), London, 1866.

'Uthman ibn Siraj al Din (Abu 'Umar Minhaj al-Din Jurjani) *Tabakat-i-Nasiri*, Bibliotheca Indica, tr., by H. G. Raverty, Calcutta, 1881.

Varthema, L., *Itinerary of Ludovico de Varthema*. Tr. by R. C. Temple, Bologna, from 1502 to 1508 as translated from the original Italian edition of 1570 by J. W. Jones, London, 1928.

Westmacott, E.V., *Ravenshaw's Gaur*, in *Calcutta Review*, vol. LXIX, 1879.

— *Archaeological Report on the District of Dinagepore*. Letter No. 154, dated Dinagepore, 29th April, 1874, in Proceeding of the Governor-General of Bengal, July, 1875.

— *Old Bengal Geography—a letter to Blochmann*, in *PASB*, 1874, vol. 43.

Wheeler, M., *The Archaeology of Pakistan*, in *Cultural Heritage of Pakistan*, Oxford University Press, 1955.

Wilkins, C., *Engravings of the Ruins of Gaur*.

Wise, J., *Notes on Sunargaon*, in *JASB*, 1874.

Wollaston, A. N., *A Complete English-Persian Dictionary*, London, 1889.

Yahya ibn Ahmad al-Sarhindi, *The Tarikh-i-Mubarak Shahi*, tr. by K. K. Basu, Baroda, 1932.

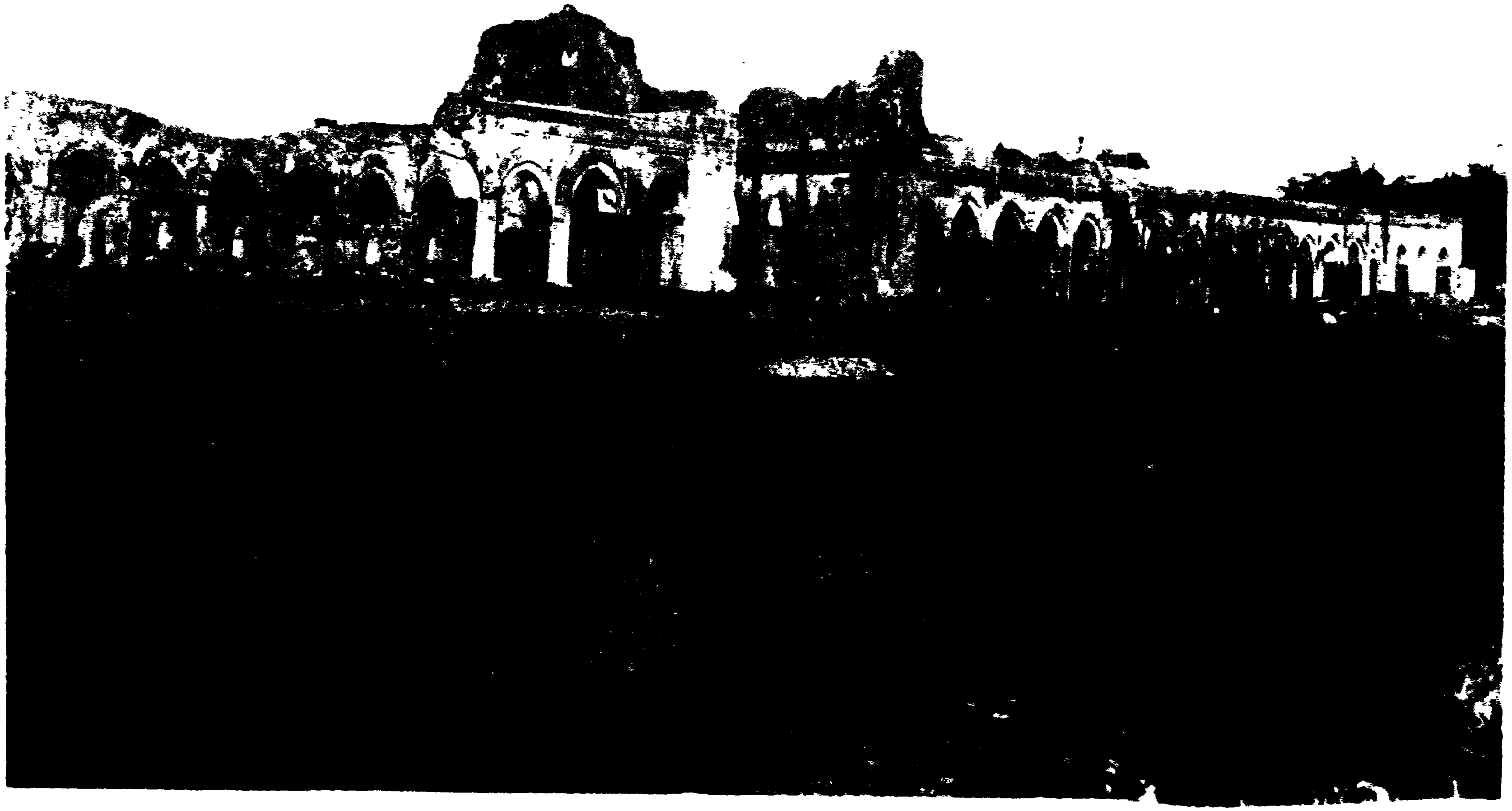
Yule, H. *The diary of William Hedges during his agency in Bengal as well as on his voyage out and return overland* (1681-87), London, 1887-89.

— *Cathay and the Way Thither : Ibn Batuta's Travels in Bengal and China*, Revised by H. Cordier, London, MDCCCCXVI.

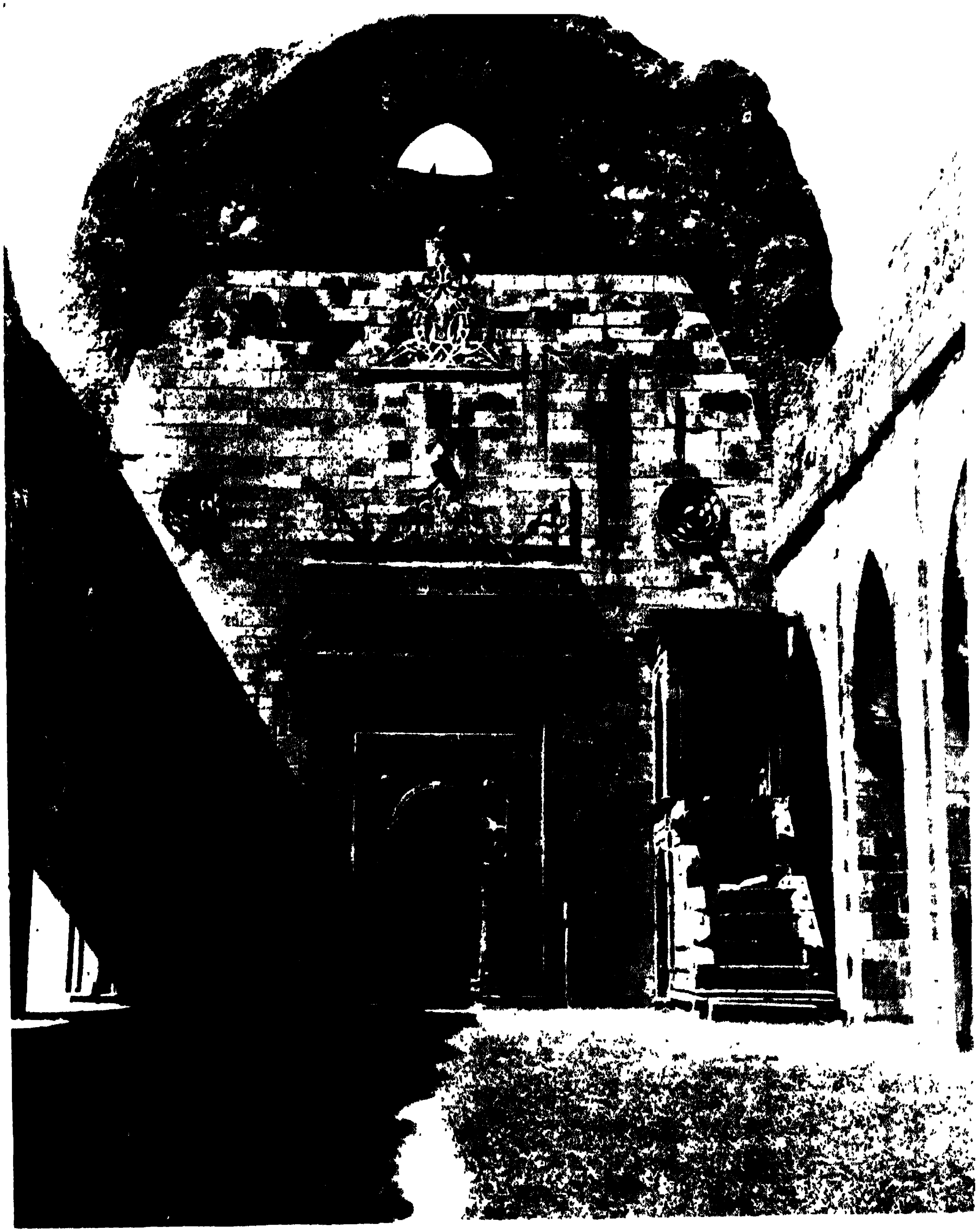
INDEX

ERRATA

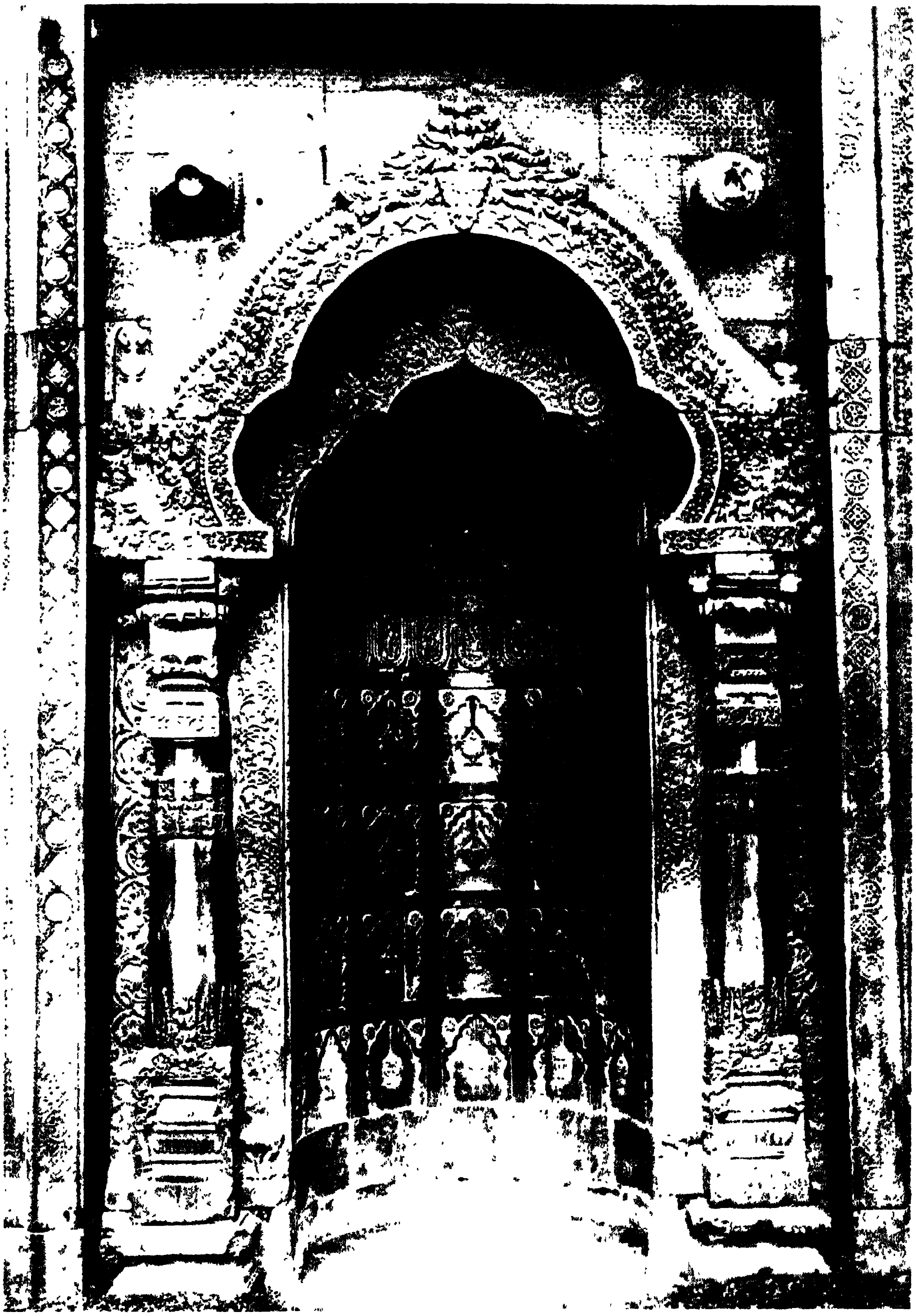
Page	*Line*	*for*	*read*
1	22	Medina	Madina
7	5	*Bukhari*	Bukhari
19	3	Maslim	Muslim
21	22	Samarkand	Samarqand
23	10	Qayrawan	Qairawan
29	39	Zavara	Zawara
31	19	Ushtarjan	Ashtarjan
35	38-39	'Ali Shahid Pir-k-Masjid	Ali Shahid Pir-ka-Masjid
69	17	one-fifth	one-fourth
69	41	Astarjan	Ashtarjan
75	16	1308	1315-16
117	36	Kahania	Khania
134	32	Mosque	Salik Mosque
146	8,22	Qasba	Kasba
176	26	Molla	Mollah



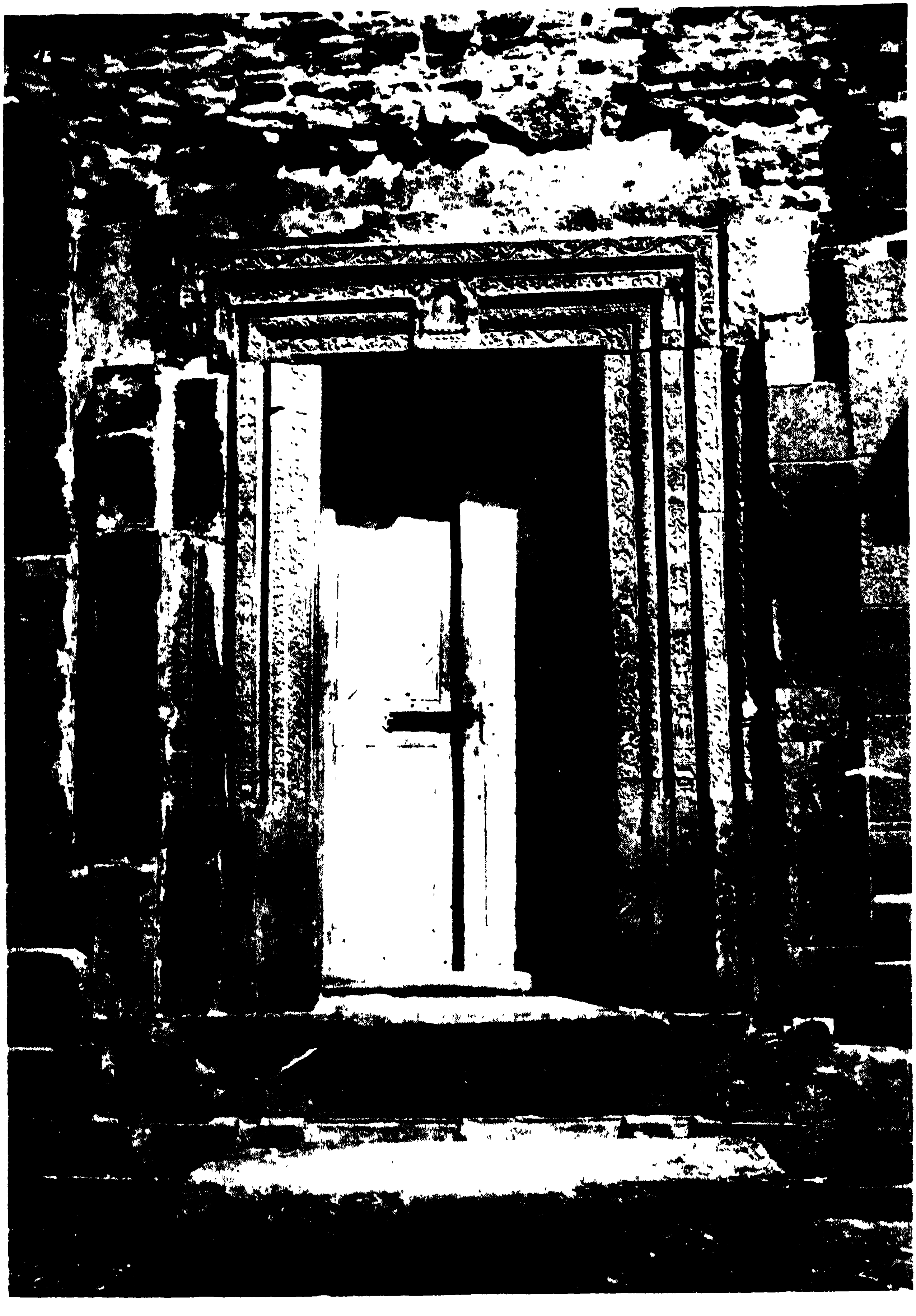
Pl I Hazrat Pandua : Adina Masjid, *Liwan*, A.D. 1474-84.



Pl. II Hazrat Pandua : Adina Masjid, central vaulted nave, showing *mihrab* and *minbar*.



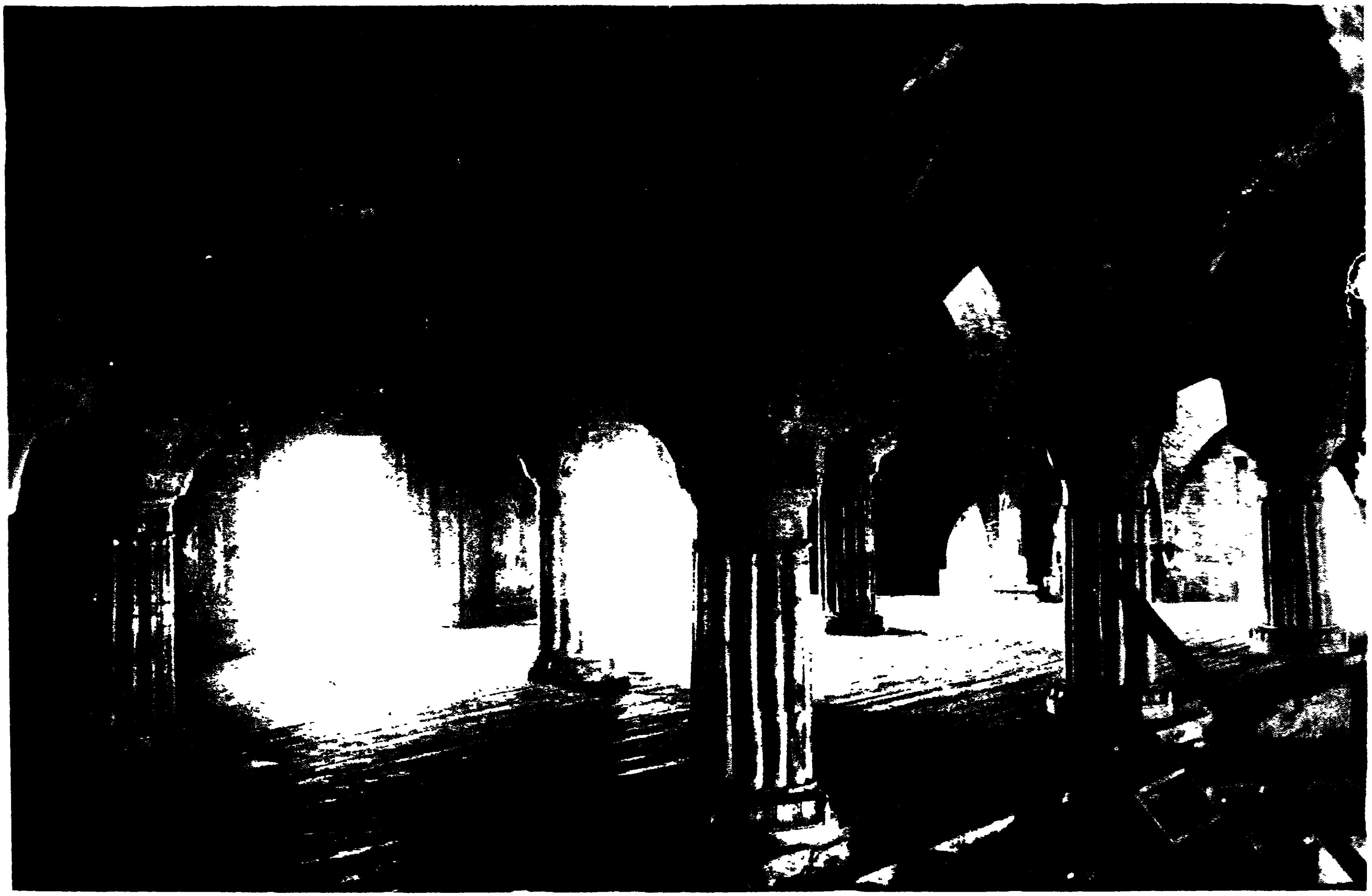
Pl. III Hazrat Pandua : Adına Masjid, central *mihrab*, detail.



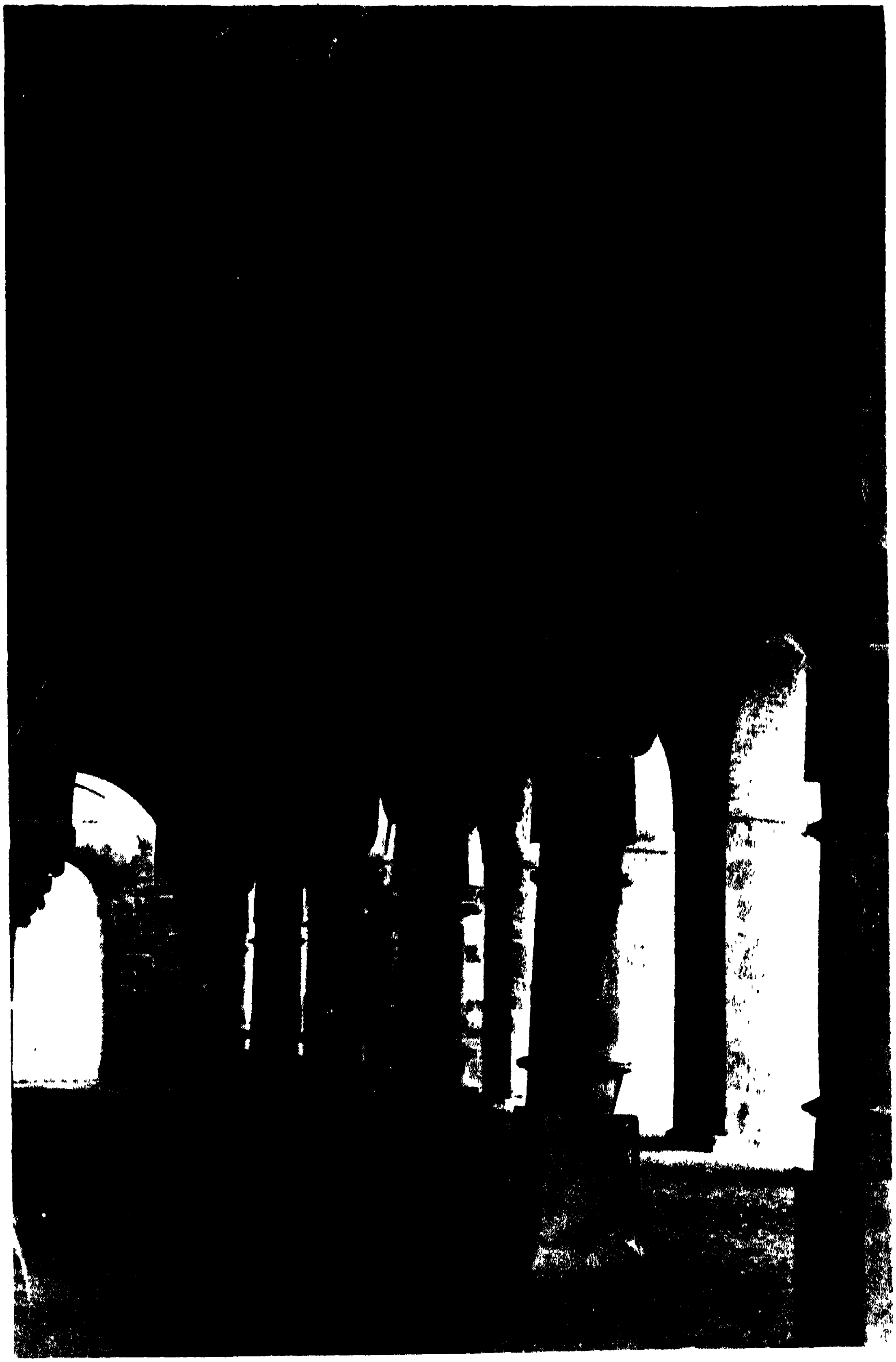
Pl. IV Hazrat Pandua : Adina Masjid, a postern gate in the *qibla* wall



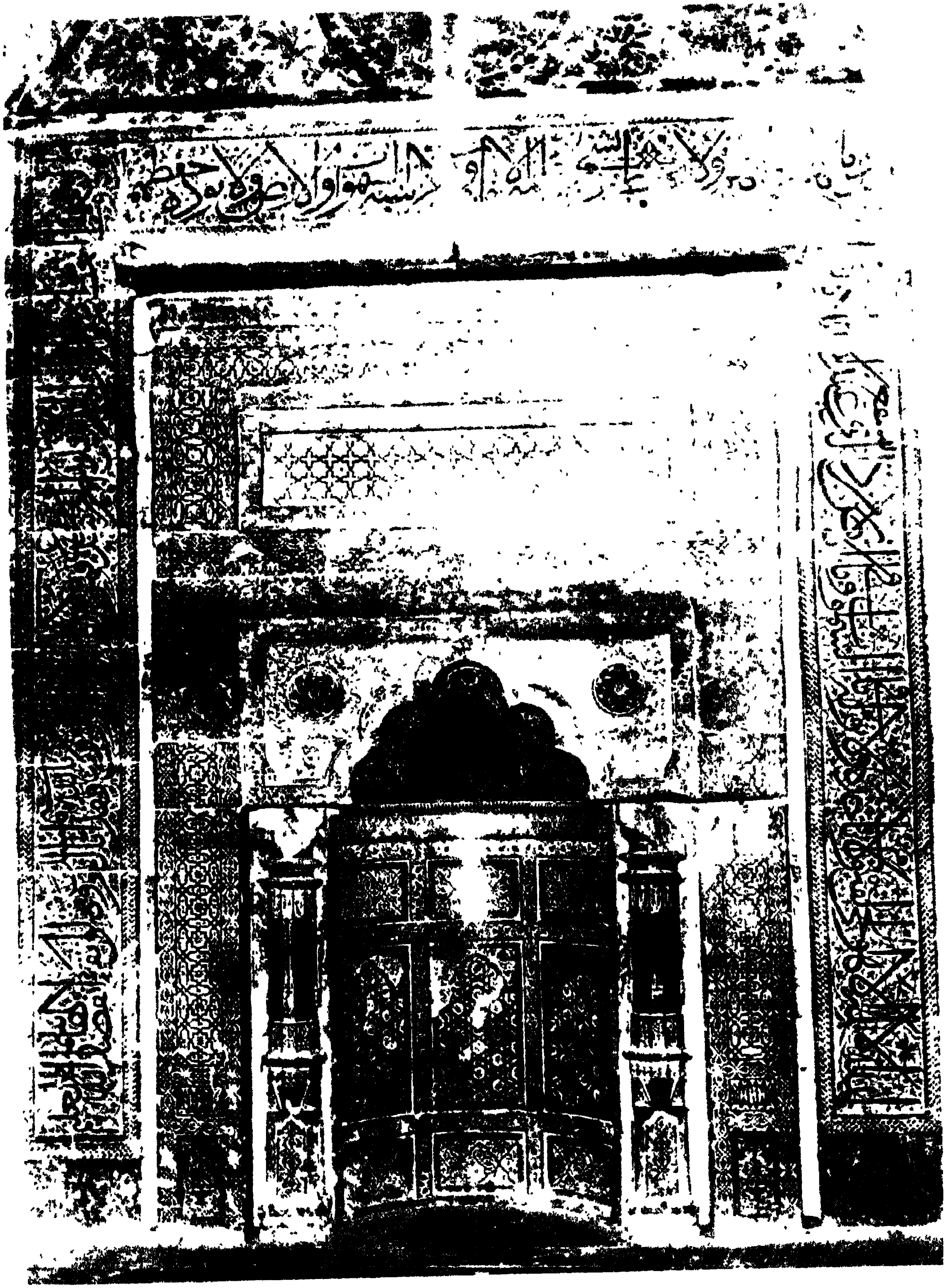
Pl. V Hazrat Pandua . Adina Masjid, lintelled doorway from zenana chamber to *zenana* gallery.



Pl. VI Hazrat Pandua : Adina Masjid, *zenana* gallery.



Pl. VII Hazrat Pandua : Adina Masjid, northern prayer hall, showing *zenana* gallery.



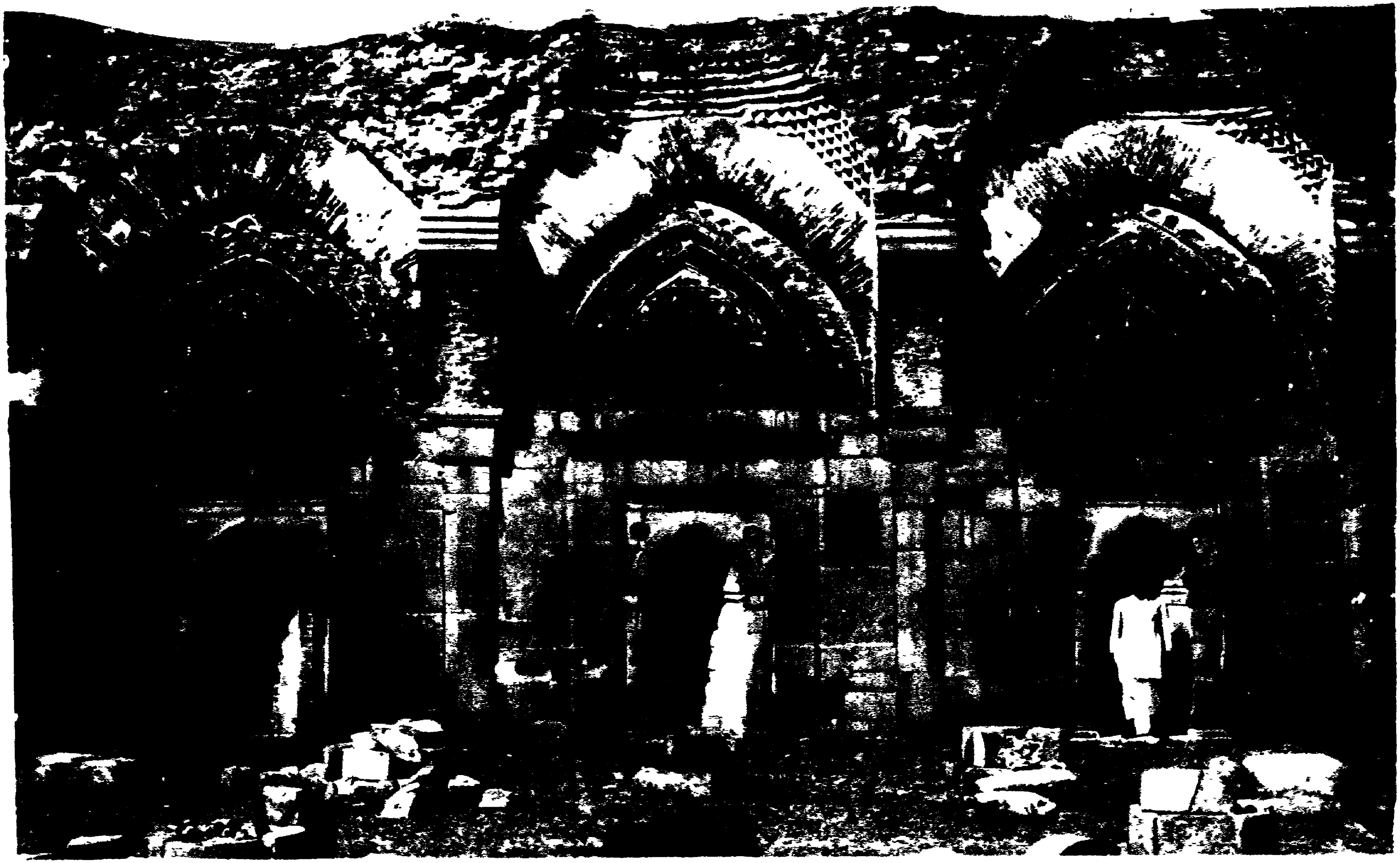
Pl. VIII Hazrat Pandua . Adina Masjid, a *mihrab* in the *zenana* gallery.



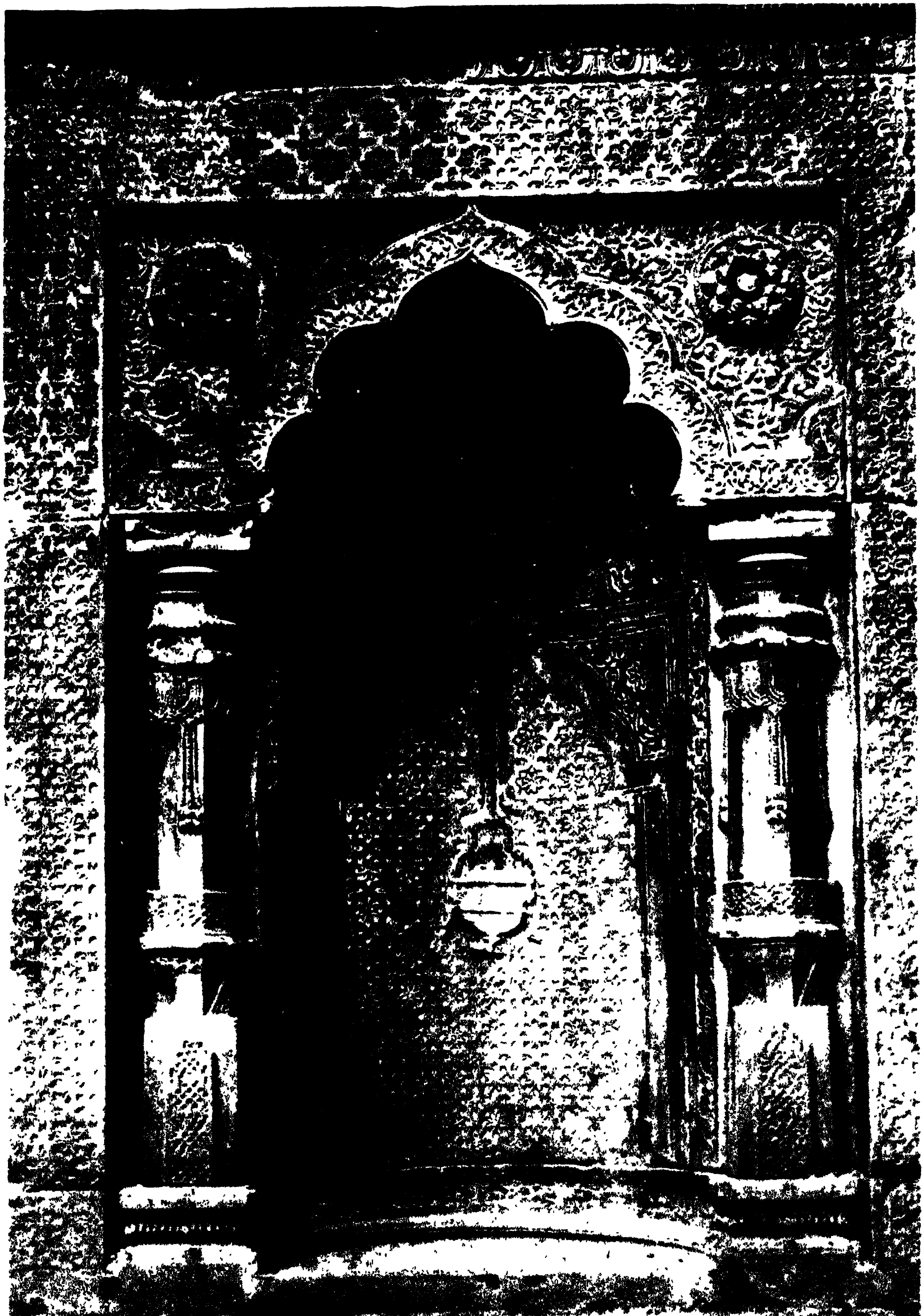
Pl. IX Hazrat Pandua . Adina Masjid, a *mihrab* in the *zenana* gallery.



Pl X Hazrat Pandua Adina Masjid, southern prayer hall, showing *mihrabs* and tympana.



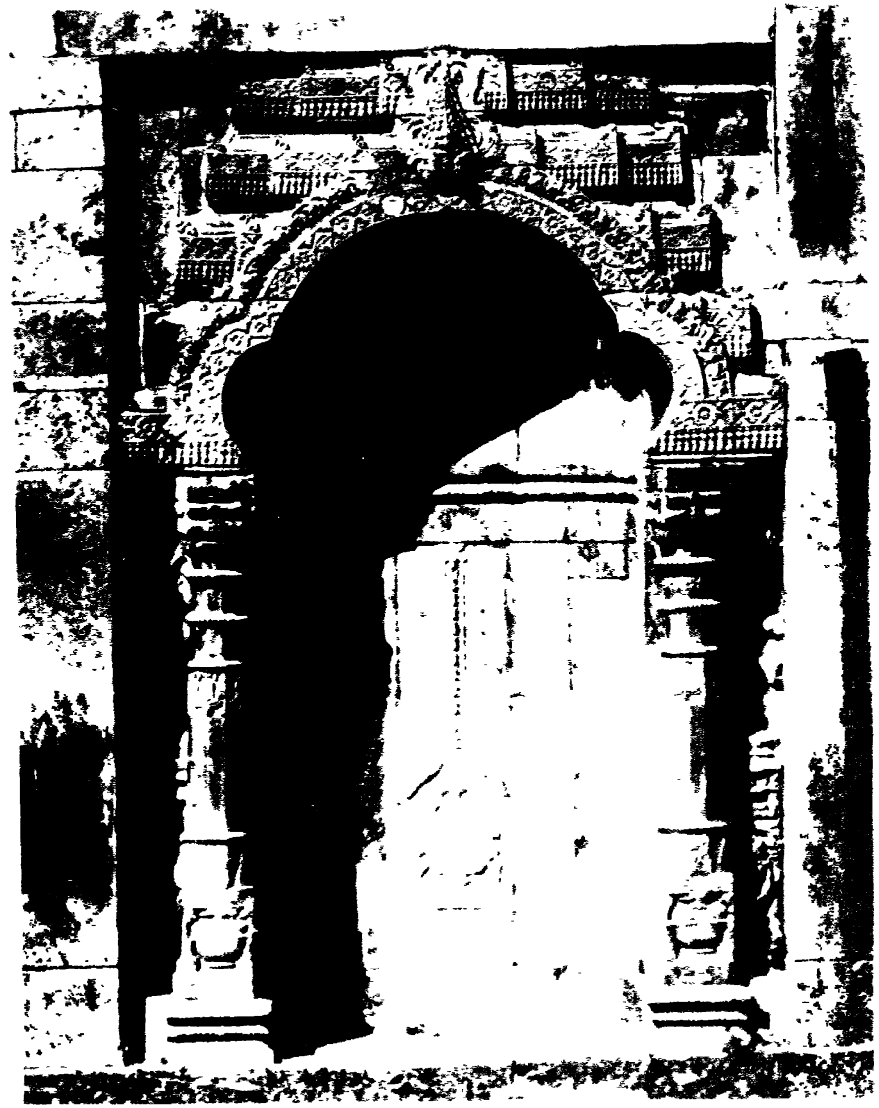
Pl XI Hazrat Pandua : Adina Masjid, southern prayer hall, showing details of *mihrabs* and tympana



Pl. XII Hazrat Pandua : Adina Masjid, *mihrab* in the northern prayer hall.



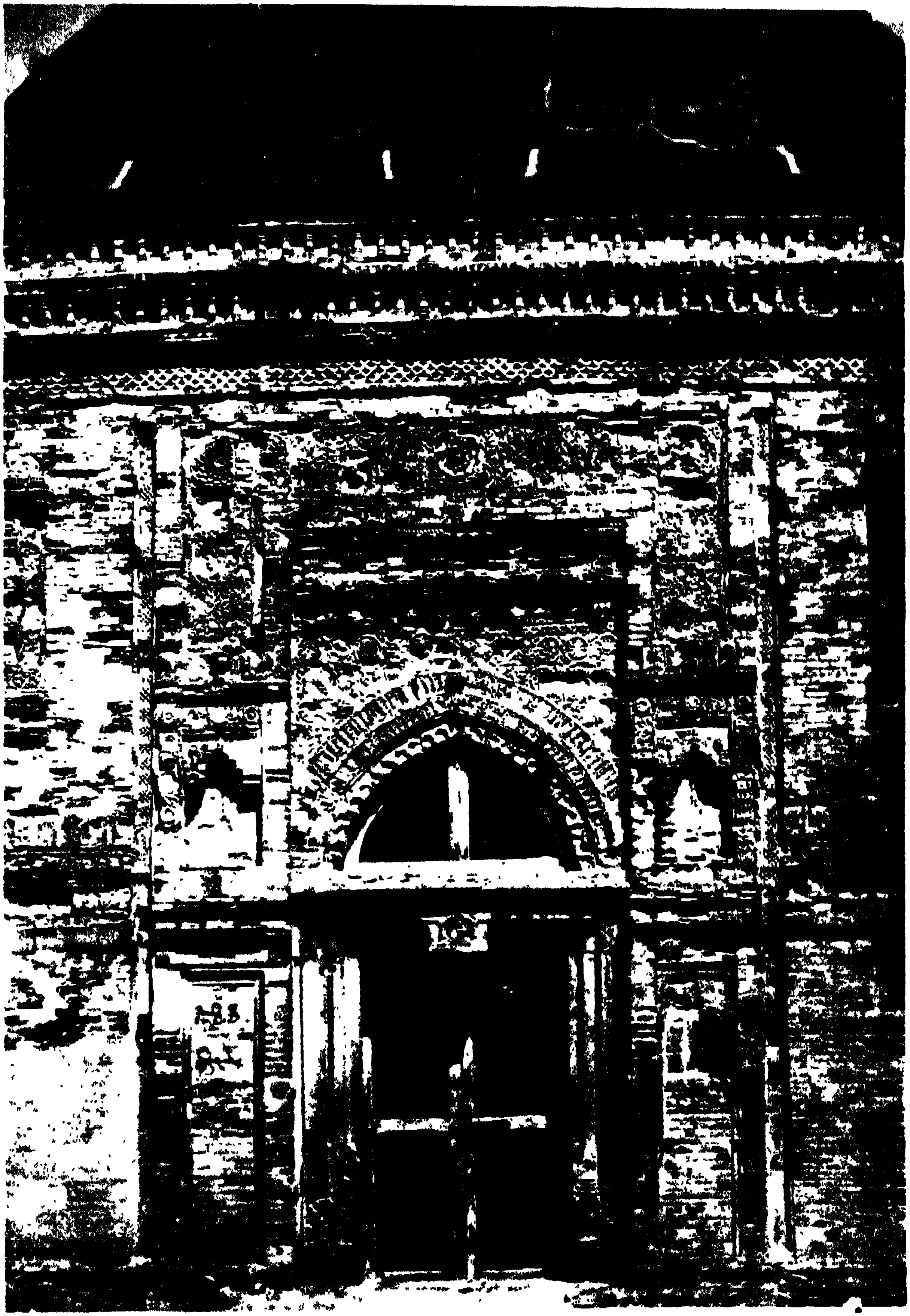
Pl. XIII Hazrat Pandua Adina Masjid, another *mihrab* in the northern prayer hall



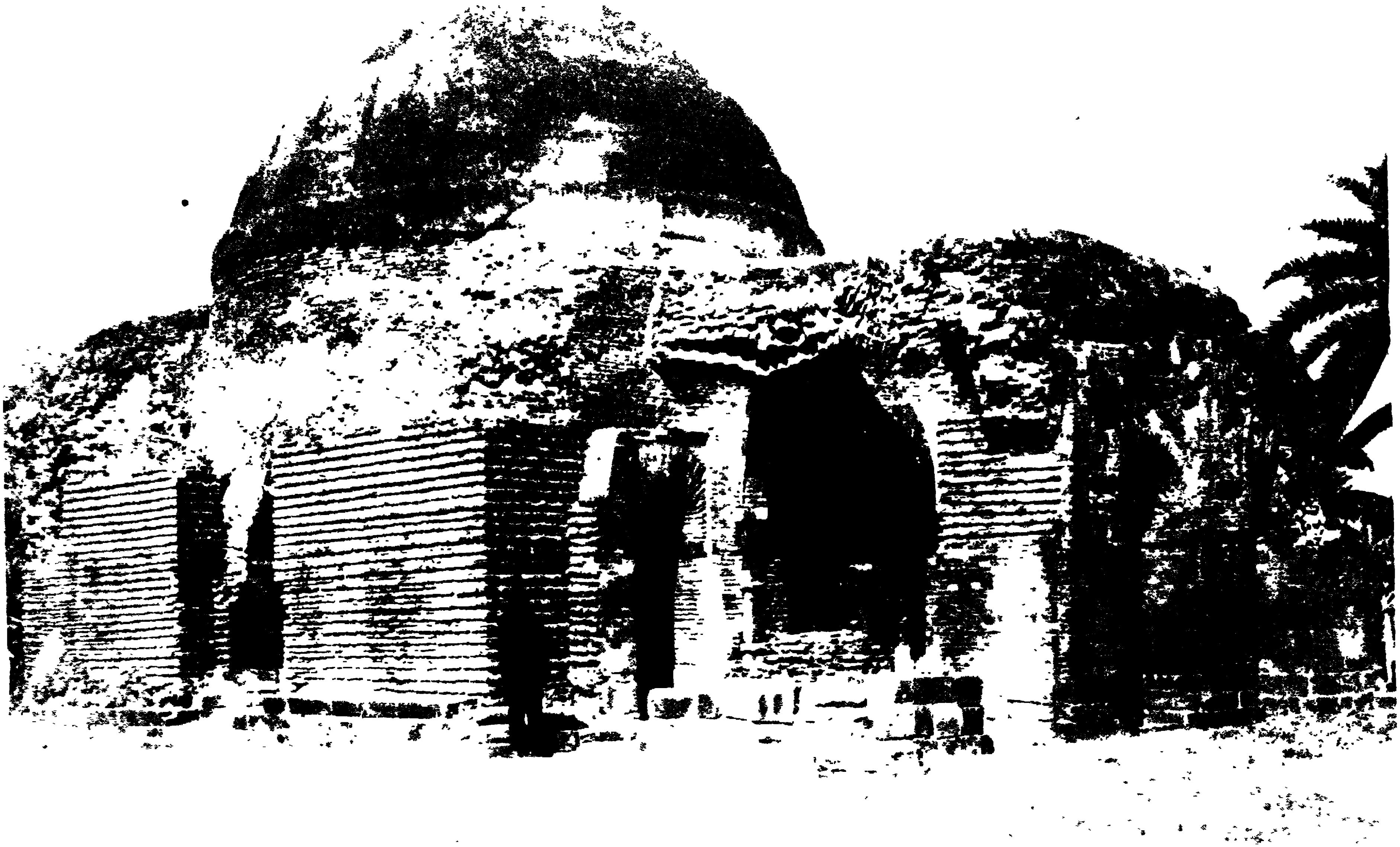
Pl. XIV Hazrat Pandua : Adina Masjid, a *mihrab* in the northern hall showing fragments of Hindu sculpture



Pl. XV Hazrat Pandua : Adina Masjid, southern prayer hall and central nave in *situ*



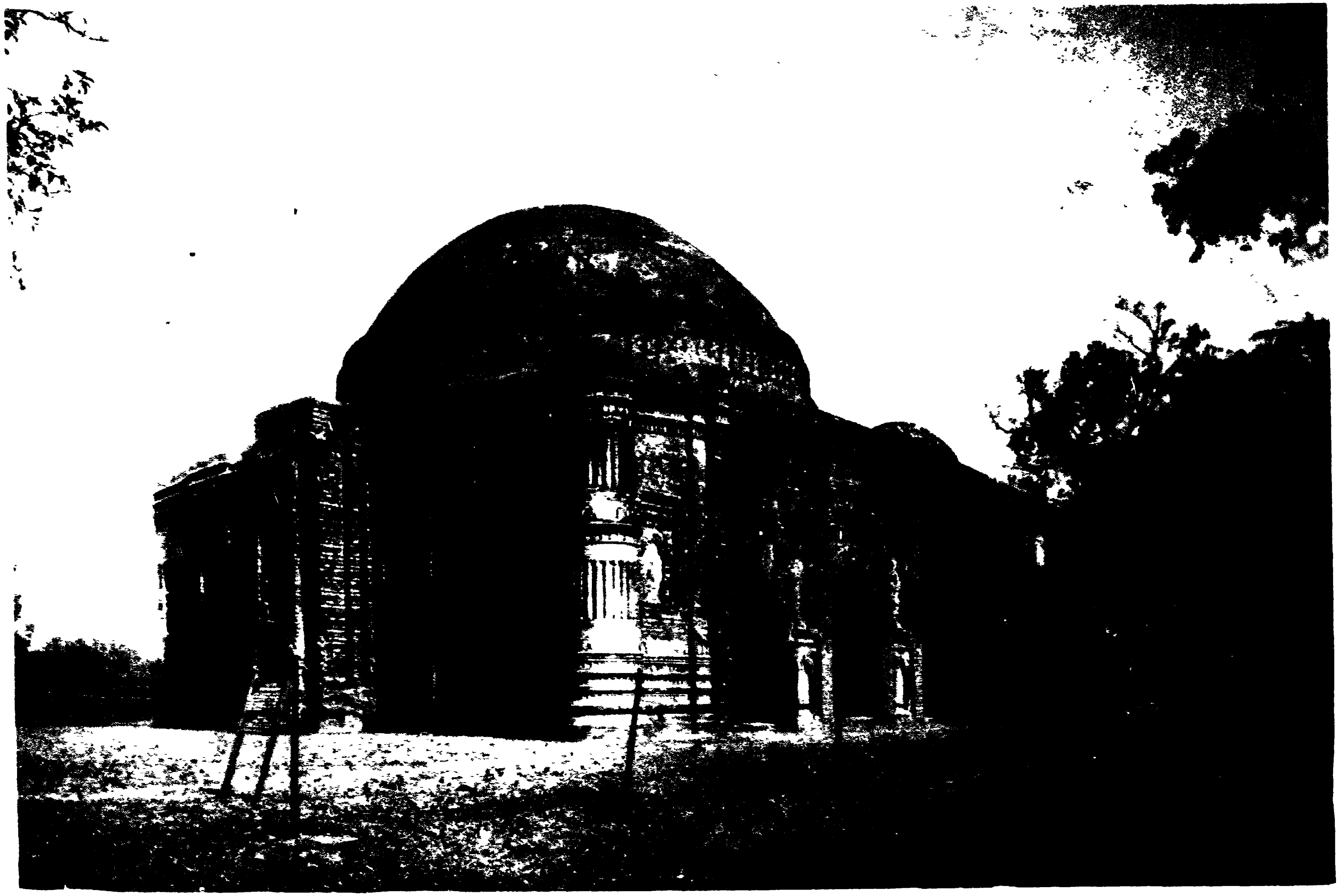
Pl. XVI Hazrat Pandua : Eklakhi Tomb, lintelled doorway to the chamber : early 15th century A.D.



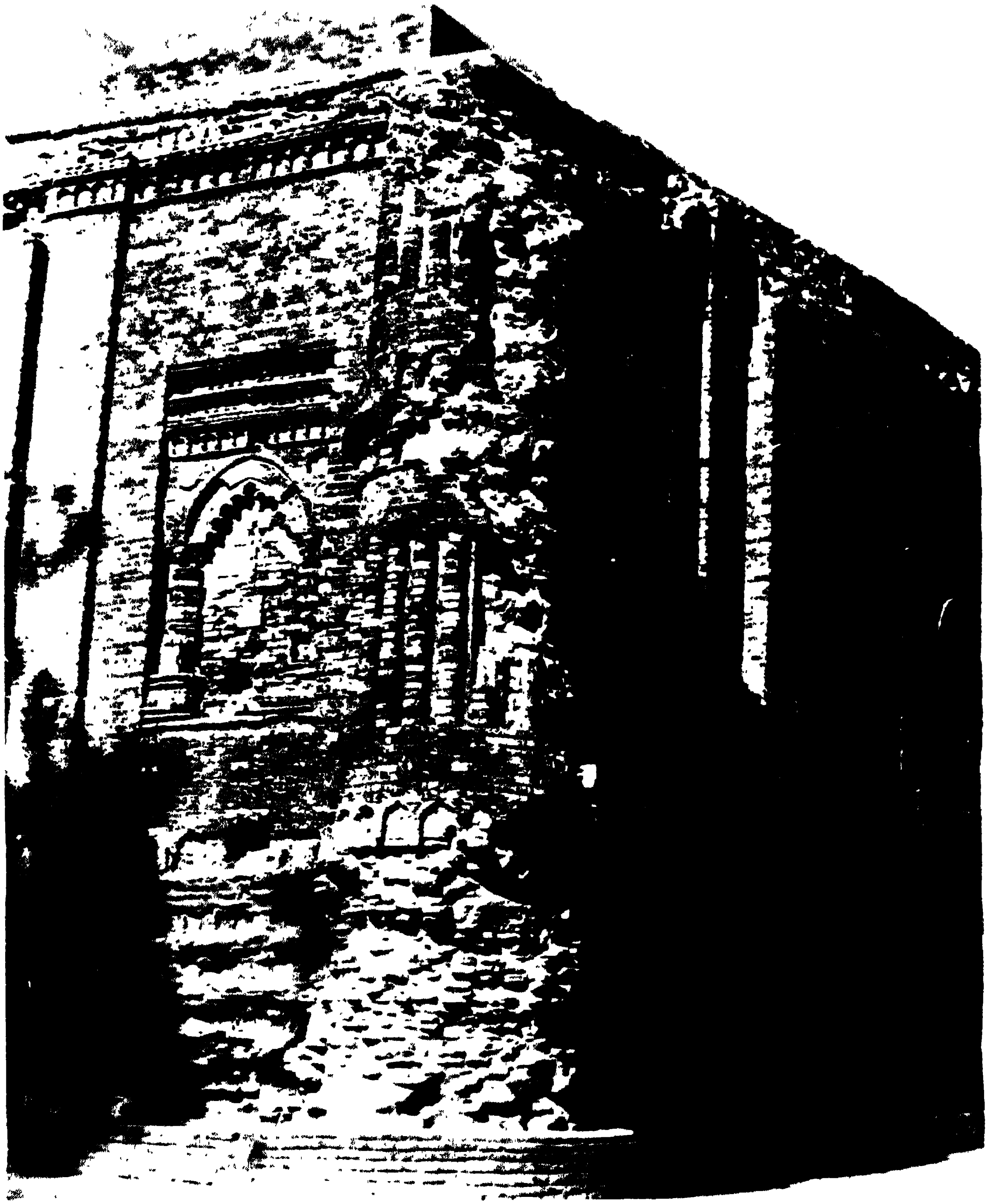
Pl XVII Gaud . Chamkatti Masjid, exterior view, A D. 1478



Pl XVIII Gaud Rajbibi Masjid, exterior view, A D 1437-86



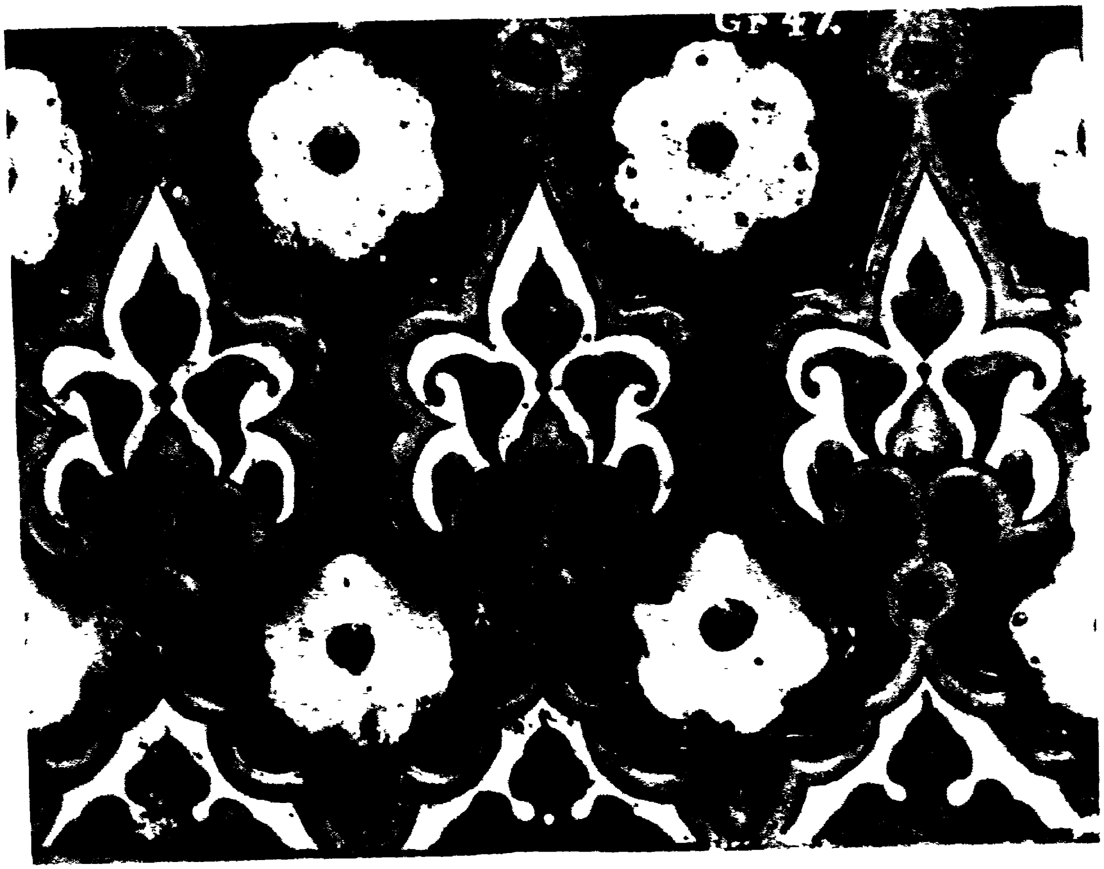
Pl. XIX Gaud · Lattan Masjid, exterior view, A.D. 1493-1519.



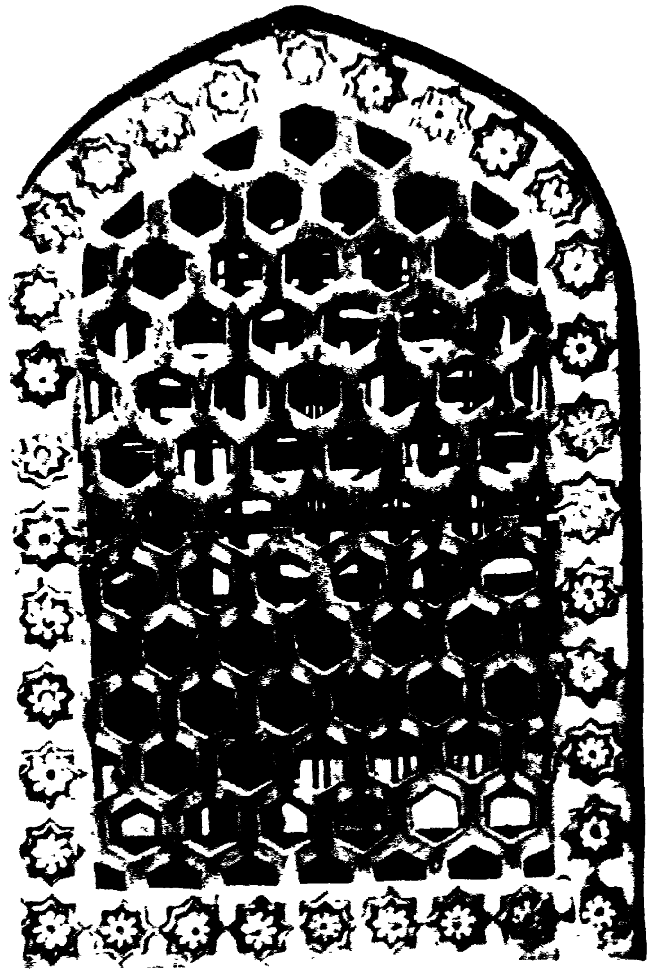
Pl XX Gaud . Lattan Masjid, corner tower.



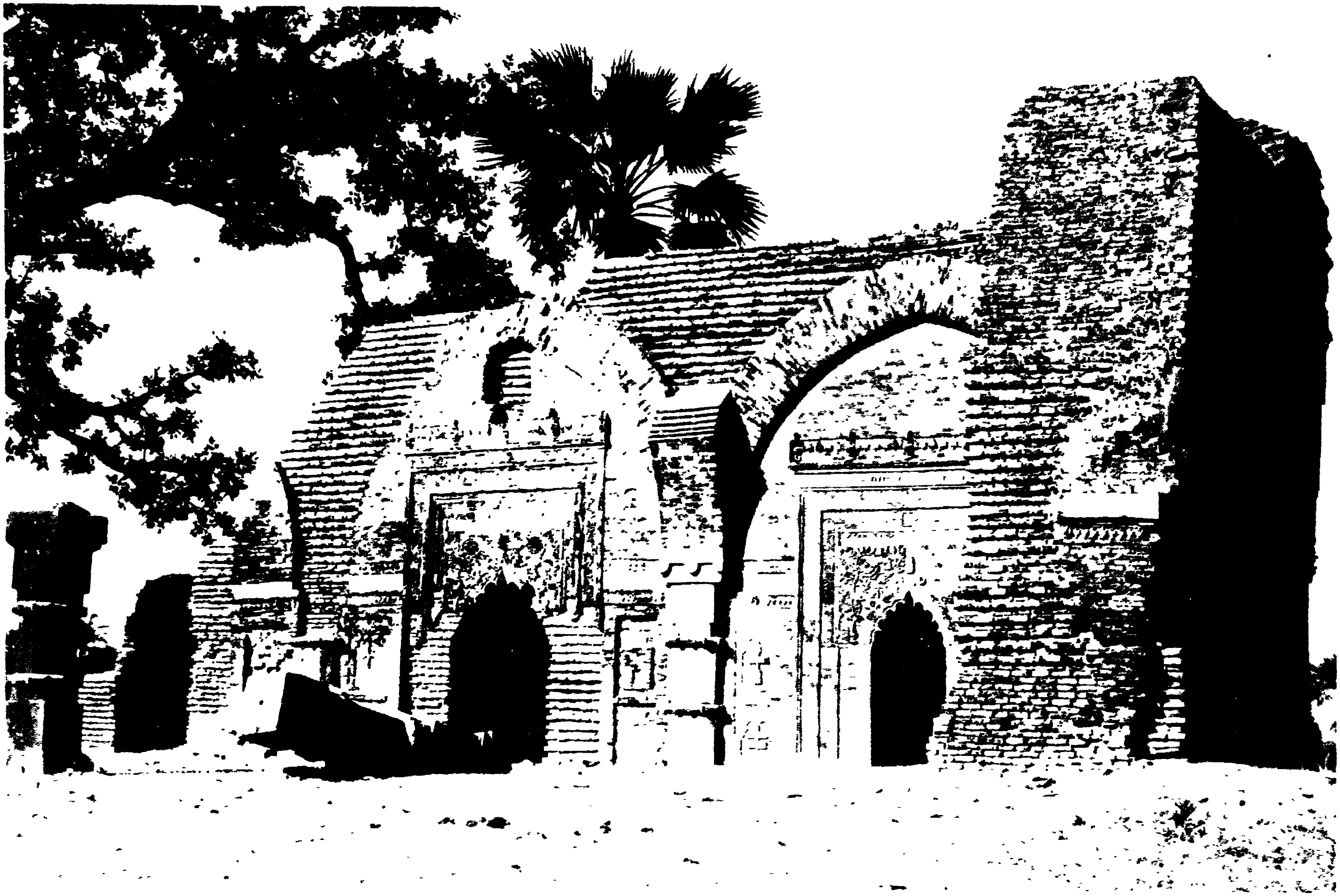
Pl XXI Gaud : Lattan Masjid, interior view, showing ceiling



Pl. XXII(a) Gaud. Lattan Masjid, glazed tiles, Indian Museum, Calcutta.



Pl. XXII(b) Gaud Lattan Masjid, glazed tiles Victoria and Albert Museum, London



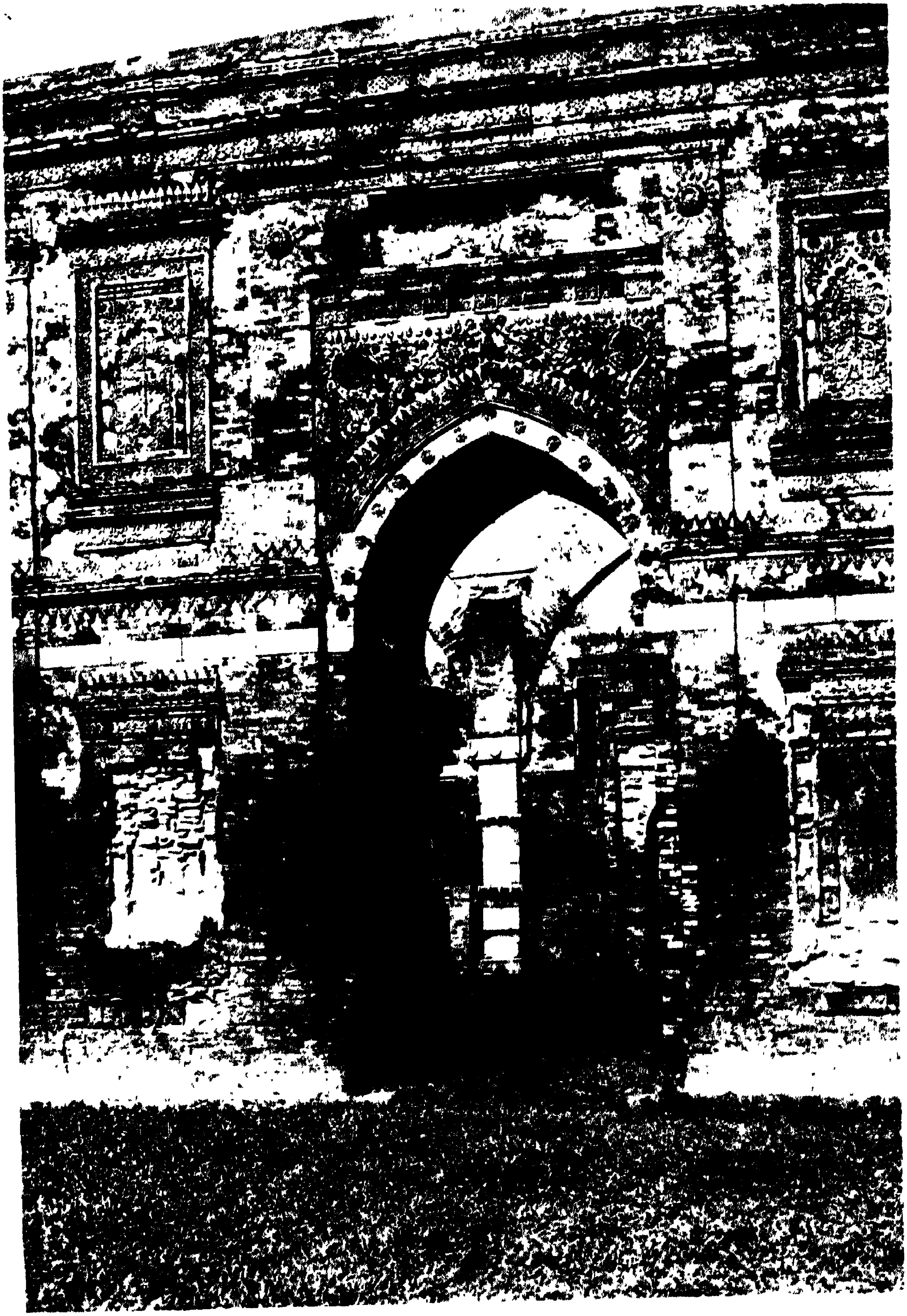
Pl XXIII Gaud Dhunichak Masjid, exterior view, (in *situ*), A.D. 1437-86



Pl. XXIV Bagerhat (Khulna) the so-called *Saith Gumbad* Mosque, A.D. 1450.



Pl. XXV Gaud : Tantipara Masjid, exterior view, A D 1480.



Pl. XXVI Gaud : Tantipara Masjid, facade showing terracotta works.



Pl XXVII Gaud · Tantipara Masjid *qibla* wall showing *mihrabs*.



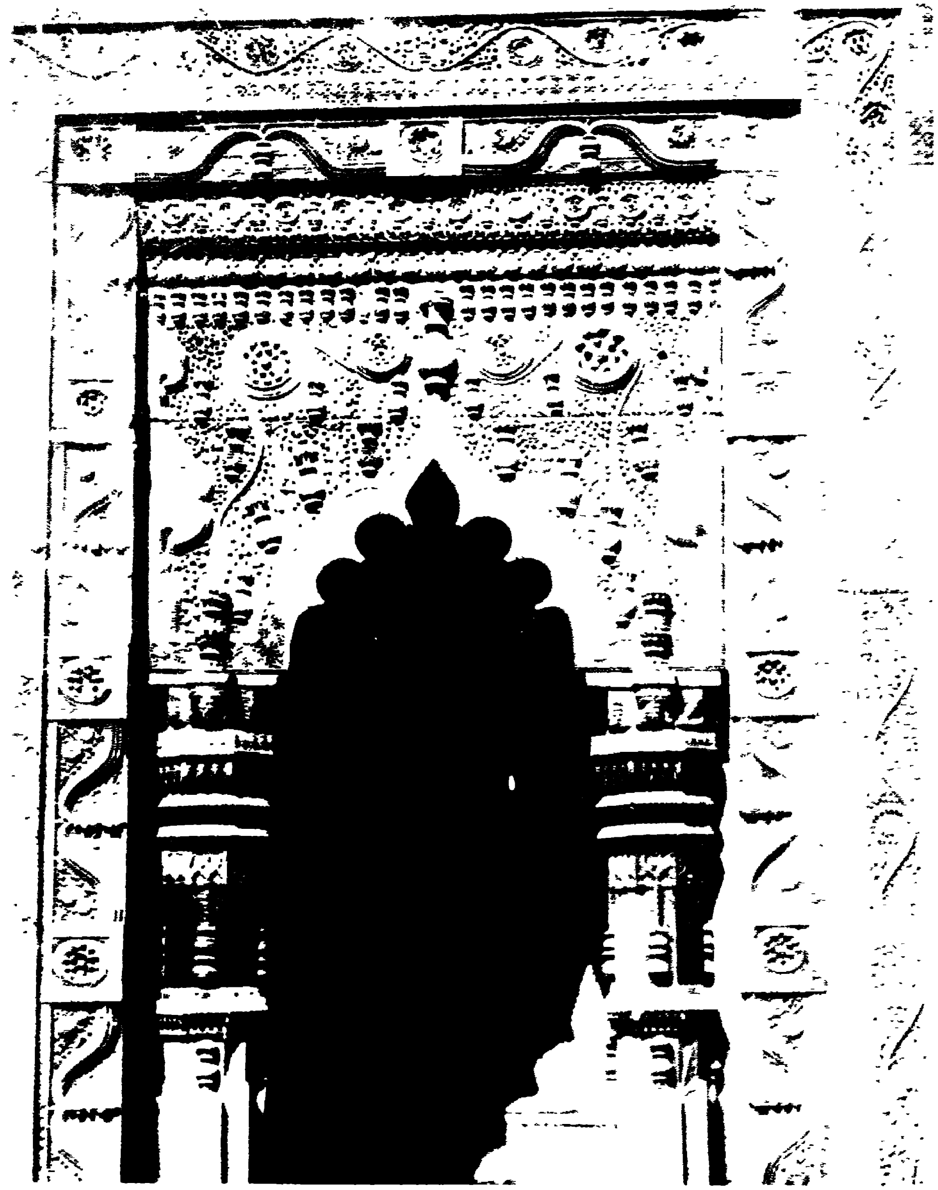
Pl. XXVIII Gaud : Tantipara Masjid, *mihrab*



Pl. XXIX Gaud : Tantipara Masjid, another *mihrab*.



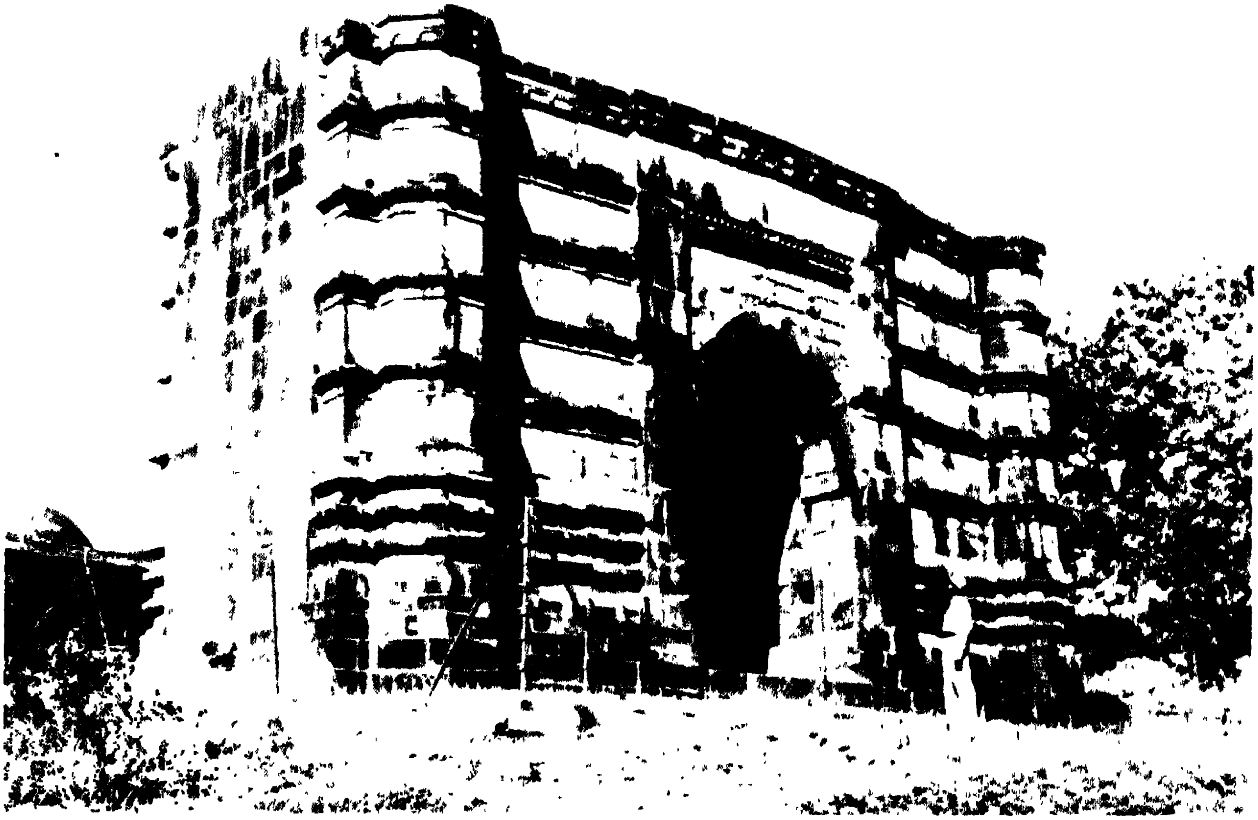
Pl XXX bagna Mosque, central *mihrab* A D 1523.



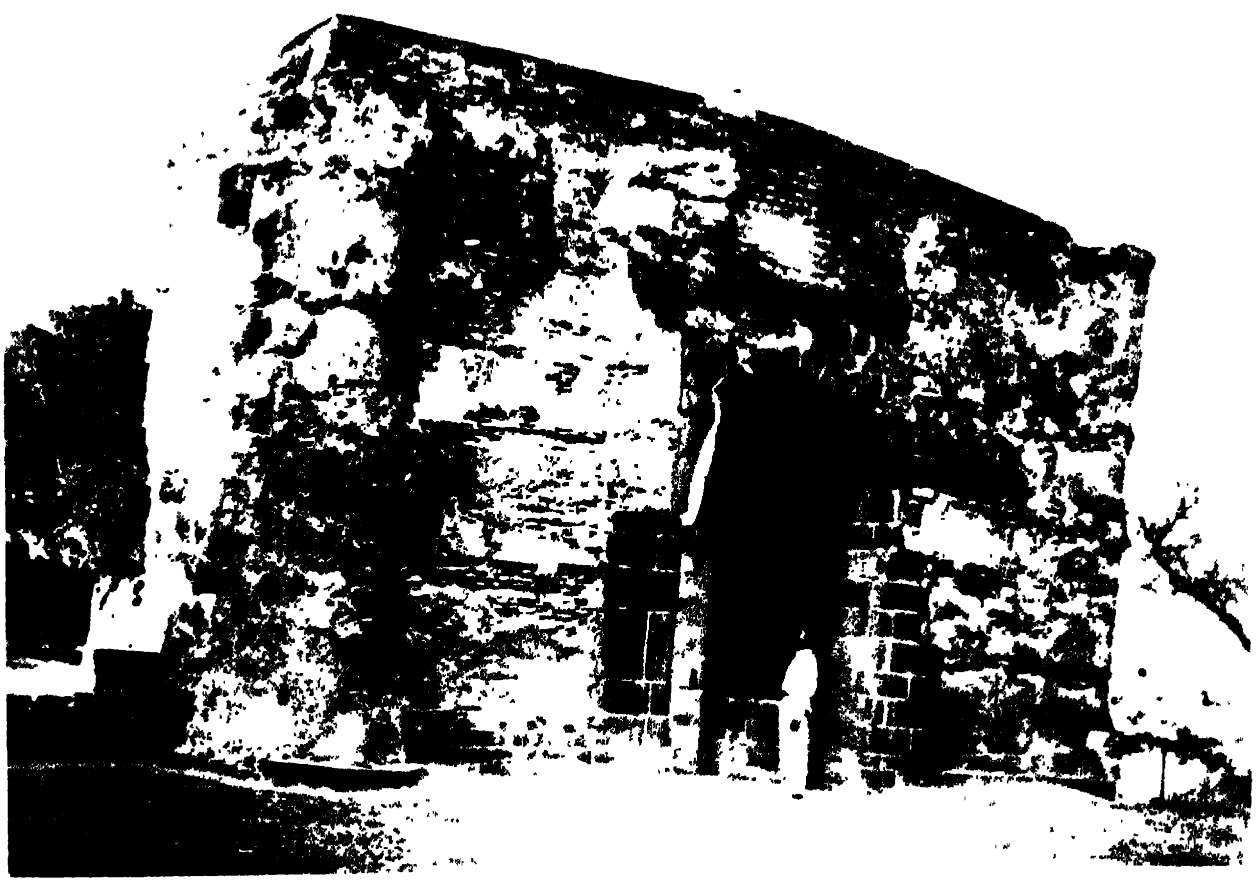
Pl XXXI Kusumbha (Rajshahi) Mosque, central *mihrab*, A D 1558



Pl XXXII Gaud . Bara Sona Masjid, *liwan in situ*, A D. 1526.



Pl XXXIII Gaud . Bara Sona Masjid eastern gate



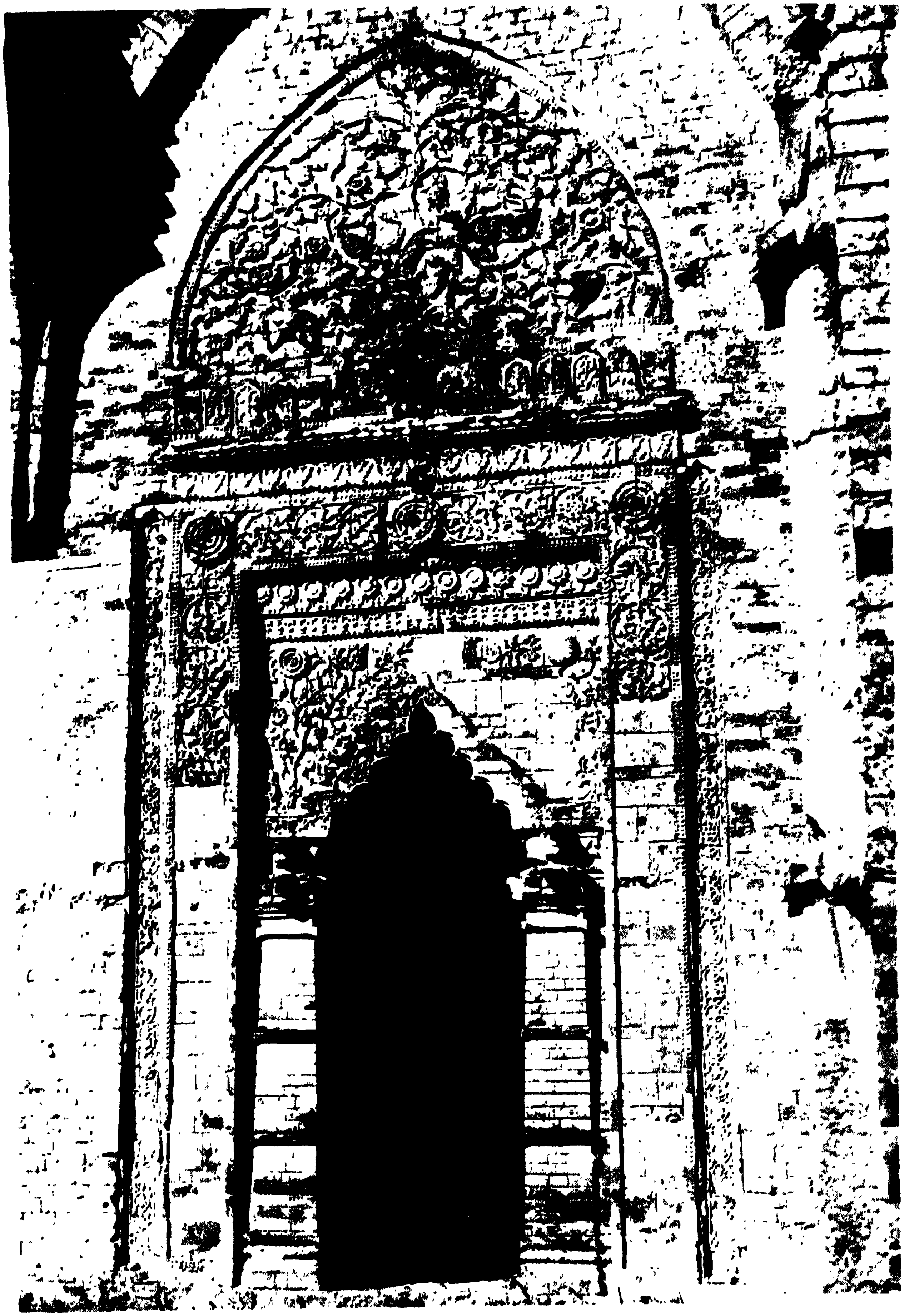
Pl. XXXIV Gaud : Bara Sona Masjid, another gate



Pl. XXXV Gaud : Bara Sona Masjid, verandah



XXX



Pl. XXXVII Gaud : Darasbari Masjid, central *mihrab*.



XXX Gaud Chhoto S ... w. A D



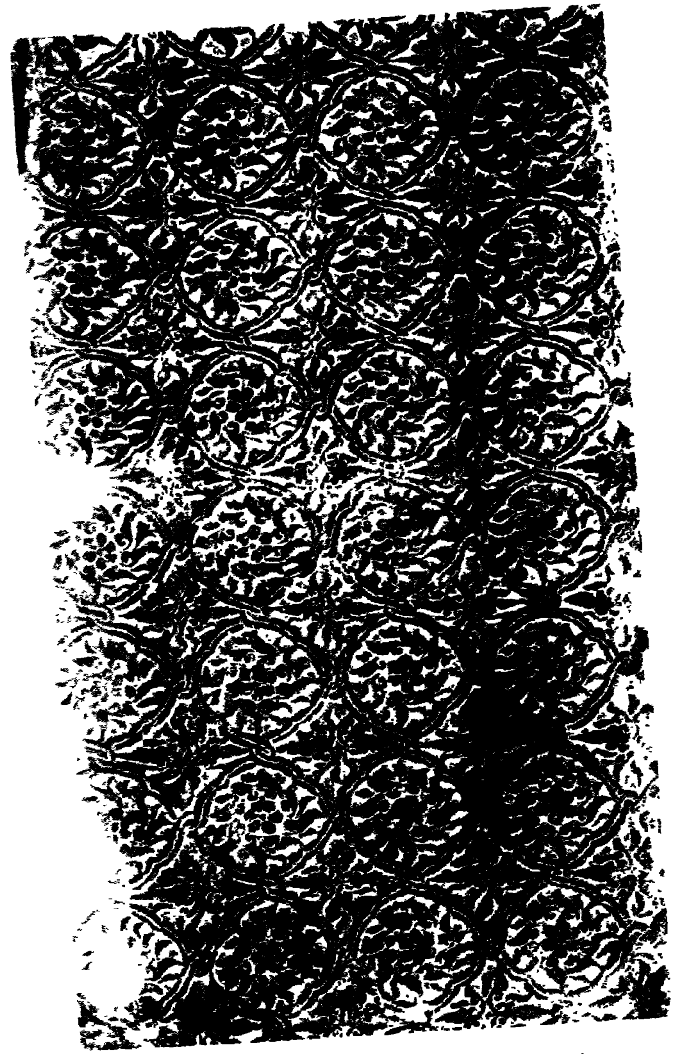
Pl. XXXIX Gaud : Chhoto Sona Masjid. *qibla* wall in *situ*.



Pl. XL Gaud Chhoto Sona Masjid, central *mihrab* at the Royal Scottish Museum, Edinburgh



Pl. XLI(a) Gaud : Chhoto Sona Masjid obverse, image of Brahmani, the British Museum.



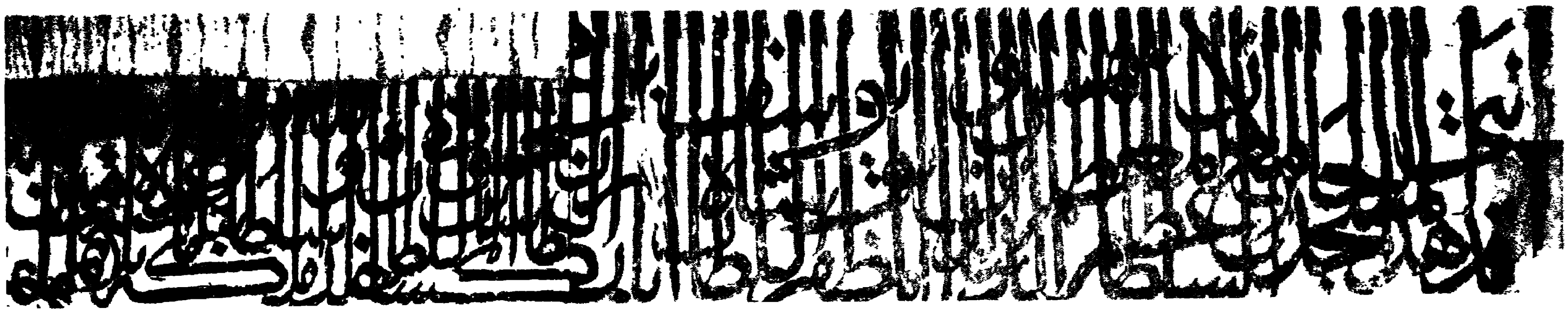
Pl XLI(b) Gaud Chhoto Sona Masjid, reverse, Muslim stone carvings, The British Museum



Pl XLII(a) Gaud Chhoto Sona Masjid, image of seated Buddha on the obverse, 11-12th centuries, A D



Pl XLII(b) Specimen of Muslin, stone cutter's art in low relief like that of Pl XLI(b) probably 16th century A D The British Museum



Pl. XLIII(a) Inscription of Sultan Yusuf Shah, dated A.H. 883/ A.D 1478, belonging to the Chamkatti Masjid, Gaud, The British Museum



Pl. XLIII(b) Inscription of Sultan Yusuf Shah, dated A.H. 885/ A D 1480, belonging to Tantipara Masjid Gaud The British Museum.